

Chapter 9

Natural Resources

Introduction

A comprehensive plan focuses many of its policies on the use of land; therefore, it is important to understand the qualities of that land and its natural resources. The geology, topography, soils, vegetation, wildlife, air, and water resources provide a framework for wise land use decisions that avoid environmental hazard areas and preserve valued natural resources.

Background

Geology

The City of Harrisonburg is located within the valley portion of the Ridge and Valley geologic province. The valley is underlain by sedimentary rocks of limestone, dolomite, and shale. A significant characteristic of the limestone and dolomitic rock of Harrisonburg, Rockingham County, and the Shenandoah Valley is its tendency to develop caves, solution channels, and sink holes as acid rainwater dissolves the rock over time. The geologic term for such limestone/dolomite areas is "karst." The prevalence of sinkholes is significant because such areas can be unstable. Subsidence can damage roads and buildings, though catastrophic collapse rarely occurs.

Karst areas are particularly susceptible to groundwater contamination because of the direct connection between the surface and groundwater through sinkholes and along cracks in surface bedrock. Contamination that seeps down through the sinkholes and cracks can reach the honeycomb of channels and caves below, potentially travelling long distances through these conduits. While few houses or businesses in the City are dependent on groundwater for their source of drinking water, many homes in Rockingham County are served by wells. Some measures that localities can take to protect groundwater in karst areas include: prohibition of waste disposal in sinkholes, requirements that stormwater be directed away from sinkholes, and spill containment measures for industrial and other uses handling toxic or potentially polluting materials near sinkholes.

Soils

A review of the *Soil Survey of Rockingham County, Virginia* (USDA Soil Conservation Service, 1982), which covers the City as well, reveals that the City's soils are dominated by clayey soils formed from limestone. The primary issues for construction are depth to bedrock and the tendency of these soils to shrink and swell with varying moisture levels.

Topography

The City is characterized by rolling topography. Slopes from 0 to 15 percent present few limitations for development. Land in the 15 to 25 percent range is appropriate for residential uses; commercial and industrial development with large buildings and parking areas require a great deal of grading to be constructed on these slopes and are generally less appropriate. Slopes 25 percent and over are usually considered unsuitable for development.

Vegetation and Wildlife

Harrisonburg is an urban area built within an agricultural area. It no longer contains large areas of woodland and natural wildlife habitat. Most wetland areas in Harrisonburg are small.

Significant populations of deer are found in several sections of the City, but otherwise most types of wildlife are those found in urban and suburban settings. Harrisonburg is a certified Tree City USA city, a program of The Arbor Day Foundation and US Department of Forestry. Generally, the citizens of Harrisonburg value the City's remaining green spaces and expressed interest in public meetings in these green spaces being preserved and expanded to the extent possible. Increased tree planting is also supported.

Water Resources

Hydrology: Harrisonburg is drained primarily by two streams, Blacks Run and the Sunset Heights Branch of Cooks Creek. About two thirds of the City sits within the Blacks Run watershed. The area of the City, west of Route 42 and South of Route 33, is in the Sunset Heights Branch watershed. Small areas in the northern part of the City drain to the watershed of the North Fork of the Shenandoah River. The Federal Emergency Management Agency (FEMA) provided the City with updated 100-year floodplain maps for Blacks Run and the Sunset Heights Branch in 2008. The City uses these maps to regulate development in the 100-year floodplain and to prohibit encroachment in the floodway.

Water Quality: Water quality has become an important issue due to several mandatory and voluntary water quality protection programs initiated by EPA, the Commonwealth of Virginia, and the Chesapeake Bay states. The first is the TMDL (Total Maximum Daily Load) program, the second is the Shenandoah and Potomac River Basins Tributary Nutrient Reduction and Nutrient Cap Strategies, and the third is the EPA requirement for the City to obtain a Virginia Pollutant Discharge Elimination System (VPDES) permit related to its Municipal Separate Storm Sewer (MS4) and for developers to obtain a VPDES permit for construction activity stormwater discharges. As part of the City's stormwater management program, developments over one acre are required to provide water quality improvement measures. The City regulates this in accordance with the Virginia Stormwater Management Regulations. Significant changes to these regulations are forthcoming.

TMDLs: The Federal Clean Water Act requires states to identify and clean up water bodies not in compliance with Federal and state water quality standards. Virginia has been required to prepare a list of such "impaired waters" and to determine the total maximum daily (pollutant) loads or TMDLs for each impaired water. The TMDL reflects the total pollutant loading a water body can receive and still meet water quality standards with a margin of safety built in. In 1992, EPA promulgated regulations regarding the development of TMDLs.

Meanwhile, Virginia adopted the *Water Quality Monitoring, Information, and Restoration Act* in 1997, which directed the Department of Environmental Quality (DEQ) to develop a list of impaired waters, to develop TMDLs for them, and to develop implementation plans. For Harrisonburg, six TMDL studies have been completed: two for Blacks Run, two for Cooks Creek, and two for Smith Creek. A TMDL study identifies the sources of the pollutants in the watershed and shows how the pollutant loads from each source must be reduced to meet the water quality standard. For each stream, DEQ has determined that violations occur for both fecal coliforms and benthic organisms. Fecal coliforms are a range of bacteria present in fecal wastes from warm-blooded animals. Their presence indicates the presence of bacteria harmful to

humans. Benthic communities are made up of bottom dwelling organisms in streams. The number and types of benthic organisms found in a stream are indicators of pollution levels.

For Blacks Run, Cooks Creek, and Smith Creek fecal coliform studies, the primary sources have been identified as non-point – stormwater run-off pollution as opposed to pollution from a specific point, such as a wastewater treatment plant discharge pipe. Urban non-point sources include leaking sanitary sewer lines, failing septic systems, and pet and wildlife wastes. A TMDL Implementation Plan has been developed by DEQ, the Department of Conservation & Recreation in consultation with local landowners and citizens and the City and County to determine what must be done to meet the fecal coliform TMDL pollution load reduction goals. Virginia has chosen to develop TMDL implementation plans that encourage voluntary actions to meet Federal water quality standards. The City, for example, has implemented a number of measures to reduce fecal waste loads, such as, a sanitary sewer inspection and management program to prevent sewage leaks, and education programs on septic pump-outs and pet waste clean-up.

The benthic TMDL studies identify the sources of pollution that adversely affect benthic organisms. Again, non-point source pollution is the problem, and in the City, sedimentation is the chief culprit. Harrisonburg continues to address these problems by such measures as: improved sedimentation and erosion control regulations and enforcement, stormwater management best management practices (BMPs), a stream bank stabilization program, planting of riparian vegetation, and increased street cleaning. While Virginia's approach has been to seek voluntary measures to reduce pollution loads, if such measures do not result in better water quality in streams, the state may require that measures be implemented to meet Federal water quality standards. EPA has the legal authority to require enforcement of TMDLs.

The City's Forest Management Plan also addresses water quality measures, which are primarily related to improving the quality of water at the City's intake area northwest of Rawley Springs, Virginia, along Dry River and two of its principal tributaries.

Shenandoah and Potomac River Basins, Tributary Nutrient Reduction and Nutrient Cap Strategies: While the TMDL program has as its basis the Clean Water Act and the law enforcement backing of the Federal government, the Shenandoah and Potomac River Basins Tributary Nutrient Reduction and Nutrient Cap Strategies are based on agreements between the Chesapeake Bay watershed states, agreements that are not currently federally enforced.

In 1987, Virginia, Maryland, Pennsylvania and the District of Columbia signed a Chesapeake Bay Agreement that recognized the role of nutrient pollution (nitrogen and phosphorus) in the Chesapeake Bay's water quality problems. In the 1987 agreement, the states set a goal of reducing controllable annual nitrogen and phosphorus loads into the Bay waters by 40 percent by 2000. In 1992, the states agreed that the most effective way to meet the 40 percent reduction goal would be to develop specific nutrient reduction strategies for each major tributary of the Chesapeake Bay river basin. With the cooperation of the City, Rockingham County and other localities in the Southern Shenandoah Region, including Augusta, Highland and Page counties, a tributary strategy was developed and adopted in 1996 for the region's portion of the Shenandoah River watershed. The strategy was projected to achieve a reduction of nitrogen loading by 43

percent and phosphorus loading by 40 percent for the Southern Shenandoah Region. The reduction was to come from both point and non-point sources. The point sources are the wastewater treatment plants, some of which were proposed to be retrofitted with biological nutrient reduction (BNR) technology to reduce nutrient discharges. The most significant reductions were projected to come, however, from agricultural non-point source reductions through the implementation of agricultural Best Management Practices (BMPs). The Harrisonburg Rockingham Regional Sewer Authority has since made BNR improvements to the North River Wastewater Treatment Plant. Meanwhile, Rockingham County and the Central Shenandoah Soil and Water Conservation District have worked with farmers to implement agricultural BMPs.

The 1987 Bay Agreement not only set a goal of reducing nutrient pollution by 40 percent by 2000, but also a goal of capping nutrient loads at that level. In other words, a “cap strategy” would need to be developed to prevent nutrient loads from increasing above the 40 percent level even as growth in the watershed continues. In March 2001, Virginia issued the *Draft Interim Nutrient Cap Strategy for the Shenandoah and Potomac River Basins*. The Nutrient Cap Strategy is called interim because water quality goals for the Chesapeake Bay are slated to change. The final cap strategy will have to address these new goals, which are not yet finalized. Under the interim cap strategy, the City may be asked to implement stormwater management BMPs not only for new development but also to retrofit existing developed areas.

MS4 Phase II Stormwater Management Program: In 1999, EPA published a new rule extending stormwater quality controls to small cities. Large cities had already been required to obtain National Pollution Discharge Elimination System (NPDES) permits for their stormwater systems, but now small cities would be required to as well. Applications for the 5-year NPDES permit were due March 2003. As required by the rule, Harrisonburg’s permit application included a description of its proposed stormwater management program to include six minimum control measures:

- Public education and outreach on stormwater impacts
- Public involvement/participation
- Illicit discharge detection and elimination (i.e. elimination of point discharges of pollution into the stormwater management system)
- Construction site stormwater runoff control (i.e. improved erosion and sediment control)
- Post-construction stormwater management in new development and redevelopment (urban stormwater management BMPs to control water quality as well as quantity)
- Pollution prevention/good housekeeping for municipal operations

The first 5-years of the permit ended June 30, 2008 and Harrisonburg submitted a new application and program plan, which became effective on July 1, 2009.

Air Quality

The City of Harrisonburg and Rockingham County are currently considered to be “in attainment” of the National Ambient Air Quality Standards (i.e., no violations of the air quality standards have been observed). Recent regulations issued by EPA have revised the standard for ozone, making it more stringent. A number of communities across Virginia have been recommended by

the Virginia Department of Environmental Quality for ozone “nonattainment” designation based on monitored data, including Shenandoah Valley communities of Frederick County and Winchester, the Roanoke area, and portions of Page and Madison counties in Shenandoah National Park. There is one ozone monitor in Rockingham County.

Noise

A primary source of noise in the City is Interstate 81. The level of traffic and the high percentage of trucks make this a significant source of noise for properties near the road. Noise levels exceed Federal Highway Administration (FHWA) noise standards at varying distances depending on the presence of screening topography. To address noise, the City should consider avoiding planning residential and other noise sensitive uses adjacent to the interstate or recommend standards for such uses that ensure that both indoor and outdoor ambient noise levels do not exceed FHWA standards.

Light Pollution

Light pollution has become an increasing concern in a number of localities and has been mentioned by Harrisonburg citizens. As more and more individuals and businesses install security lighting or increase the intensity of existing lights, the problems of poorly designed lighting systems increase. The Comprehensive Plan includes a recommendation to reduce light pollution, while recognizing the importance of quality lighting for crime prevention. State code changes will be needed to implement standards to prevent excessive lighting.

Natural Resources Goal, Objectives and Strategies

Goal 8. To preserve and enhance the City's natural resources and encourage development that is compatible with nature.

Objective 8.1 To keep abreast of environmental issues facing the City and to monitor the City's environmental health.

Strategy 8.1.1 To tap local expertise as available to keep abreast of environmental issues facing the City and to monitor the City's environmental health.

Strategy 8.1.2 To prepare an annual or biannual “state of the City's environment” report using compiled data collected by the City, the Virginia Department of Environmental Quality, the Virginia Department of Conservation and Recreation and other sources and describing and recommending programs to address environmental issues.

Objective 8.2 To develop water and air quality improvement programs to comply with federal and state standards, programs and requirements.

Strategy 8.2.1 To continue to implement the City's MS4 Phase II storm water management program dealing with improving the quality of storm water runoff.

Strategy 8.2.2 To continue working with the Virginia Department of Environmental Quality, the Virginia Department of Conservation and Recreation, and

other partner organizations that implement best management practices to improve stormwater and water quality.

Strategy 8.2.3 To collaborate with Rockingham County and the Virginia Department of Environmental Quality in developing an air quality improvement plan, should the region be declared to be nonattainment for ozone pollution.

Objective 8.3 To create a set of environmental performance standards for public and private development and redevelopment projects.

Strategy 8.3.1 Using state standards where applicable, to prepare a set of environmental performance standards for all development which may include such issues as:

- Pollutant discharges into water resources
- Air emissions
- Erosion and sediment control
- Noise exposure limits
- Excessive light emissions
- Energy use and efficiency
- Protection of environmental features: floodplains, wetlands, steep slopes, sinkholes, tree cover

Sufficient funding will need to be secured to establish this new program.

Strategy 8.3.2 To ensure coordination with state agencies on project compliance with state environmental standards.

Strategy 8.3.3 To consider adoption of local environmental performance standards as either policies or regulations after public input.

Objective 8.4 To preserve and expand green spaces and tree planting in the City.

Strategy 8.4.1 To consider adopting open space preservation requirements or incentives for new development.

Strategy 8.4.2 To purchase and accept donations of land for the implementation of the Blacks Run Greenway and other planned greenway and park projects.

Strategy 8.4.3 To include streetscape improvement plans in downtown, neighborhood conservation area, business revitalization area, and corridor enhancement plans.

Strategy 8.4.4 To implement landscape improvement demonstration projects at City gateways and other appropriate locations.

Strategy 8.4.5 To consider adding street tree planting and other landscape requirements for new development and redevelopment in the City's land use codes.

Strategy 8.4.6 To prepare and implement landscape plans for City public facility development projects.

- Strategy 8.4.7 To provide proper maintenance of City trees to ensure tree health and to minimize damage to utility lines.
- Strategy 8.4.8 To implement stream riparian buffer and planting projects in partnership with public and private entities when possible.

Objective 8.5 To promote resource conservation.

Strategy 8.5.1 To promote recycling through:

- Continued public education campaigns
- Adoption of regulations requiring businesses to sort their recyclable solid waste and make it available for collection
- Giving City purchasing preference to recycled paper

Strategy 8.5.2 To promote water conservation through:

- Public education campaigns
- Collaboration with local hardware and building supply stores to promote water conserving fixtures and appliances.

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Chapter 10

Parks & Recreation

Introduction

The City's Parks and Recreation System and all components therein, has a considerable positive effect and influence on Harrisonburg citizen's quality of life, the health and well-being of its citizens, and community economic and environmental sustainability. The City is committed to a well developed Parks and Recreation System by offering diverse and varied activities, including improved health and stress reduction, adult and youth development programs, resource conservation and protection, flood protection, improved air quality, improved aesthetics, revenue generation, and enhanced property values.

Background

The City's commitment to improved parks and an excellent recreation program is demonstrated by its adoption of the Comprehensive Parks and Recreation Master Plan in 2003. This Master Plan describes existing conditions of the parks and recreation system, provides results of a citizen survey, sets standards for future park development and makes recommendations for needed improvements to the system. In addition, Master Plans for two parks have been completed and accepted by the City. These include the Smithland Road Park Master Plan completed in 2004 and the Ralph Sampson Park Master Plan completed in 2008. The reader is referred to the Comprehensive Parks and Recreation Master Plan 2003 for detailed background information that was used to develop this Comprehensive Plan's goals, objectives and strategies. The following summary background information is drawn from the executive summary of the master plan.

Survey of Citizens Recreation Interests

The main objective of the public survey was to obtain information on citizens' patterns of current use, preferences, and desires with the goal of understanding any current and future deficiencies in Parks and Recreation programs and facilities. Other objectives of the study were to discover effectiveness of the City's Parks and Recreation system as a service to the community, to gauge customer satisfaction and to determine the current level of use of City parks. The survey was conducted by telephone calls to 400 randomly selected respondents in each of the five voting precincts. A detailed analysis can be found in the appendix of the Comprehensive Parks and Recreation Master Plan 2003. The data gathered was tabulated and charted to reveal many facets of citizens' use patterns and needs. Some of the notable findings included:

- Approximately 85 percent of Harrisonburg residents use the Parks and Recreation system.
- Overall park use is distributed evenly over each voting precinct.
- Approximately 85 percent of Harrisonburg households rate their satisfaction with the Parks and Recreation system as good to excellent.
- Picnicking, swimming, hiking, biking and running were the activities most participated in by households.
- Soccer, football, golf, softball, baseball, basketball and tennis were the activities second most participated in by households.
- Sixty-five percent of Harrisonburg households visited museums as a leisure activity, 42 percent visited nature and interpretive centers.

- The top most requested improvements were a walking trail, bike trail, better security and activities for different age groups. Thirty percent of households had no suggested improvements to the Parks and Recreation system.
- The top most requested parks or facilities were a skateboard park, water parks and swimming pools, children's sports fields and walking/bike trails. Thirty-one percent of households had no suggested improvements to the Parks and Recreation system.
- The top most requested improvements to existing programs and classes were more variety of hours/scheduling, swimming classes, painting classes and better information of what classes are offered.
- Requests for new programs and activities were very diverse. Twenty-four percent of households had no suggestions for new classes or programs.
- The most desired leisure activities were concerts or music festivals, live theater, arts and crafts events, and sporting activities. Seventy percent of respondents did not know nor had any suggested improvements.
- Purcell, Hillandale, and Westover Parks were the most used parks overall by Harrisonburg households.
- Morrison, Purcell, and Westover Parks were the most frequently visited parks on average.
- Hillandale, Purcell, and Westover Parks were the most evenly used by residents of each of the five voting precincts.

Parks and Recreation Program Needs

The public survey and the comparative analysis of level of use standards revealed several shortfalls and needs for improvements in the Parks and Recreation system. Many of the needs expressed were in the area of athletic fields, walking trails, swimming pools, indoor hard courts and expanded programs for youth activities. A high demand was expressed for soccer and softball/baseball facilities. This was due to intensive use of existing facilities and the popularity of these sports with the general population as well as specific ethnic groups. In an analysis of available park acreage and distribution of parks by neighborhoods and voting precincts, it became evident that the population was relatively well served by larger community parks. However, the availability and distribution of neighborhood and mini parks was generally deficient. The east side of the City is the least well served by these types of parks. This area is where much of the expected population growth is speculated to occur.

The following summarizes the major recommendations of the Comprehensive Parks and Recreation Master Plan 2003:

- Purchase or dedicate sufficient land for several new neighborhood parks in the Waterman, Stone Spring, and Simms voting precincts.
- Develop several new mini parks in urban areas around the City.
- Expand and redevelop existing community and neighborhood parks, taking advantage of underutilized spaces.
- Support and develop a City-wide greenway system that includes connections to parks, schools and community facilities.

- Expand the Cecil F. Gilkerson Community Center to include additional hard court space, auxiliary gym, improved site circulation and parking, expanded activity rooms and expanded swimming facilities.
- Provide additional youth athletic fields and programs.
- Provide additional youth programs and activities.
- Expand program staffing, volunteers and hours for programs and classes where appropriate.
- Develop the Smithland road property as a major community and athletic park with amenities for the neighborhood in that area.
- Begin planning and development of a new Community Recreation Center in the southeastern sector of the City. The center should be accessible to the general public by mass transportation as well as by walking and bicycling.
- Provide a conveniently located facility for events and performances.
- Develop several new athletic fields including soccer, football, softball and baseball.

The goal, objectives, and strategies listed below focus on the physical facilities recommendations of the Comprehensive Parks and Recreation Master Plan 2003.

Parks & Recreation Goal, Objectives and Strategies

Goal 9. To meet the recreation needs of every citizen by providing comprehensive leisure opportunities and developing and maintaining a safe, well-distributed park and recreation system.

Objective 9.1 To continue to support and market Harrisonburg's parks and recreation system as a major community benefit and indirect revenue generator by implementing the Comprehensive Recreation and Parks Master Plan 2003.

Strategy 9.1.1 To incorporate by reference into this Comprehensive Plan the recommendations, policies, and proposals of the Comprehensive Recreation and Parks Master Plan 2003.

Strategy 9.1.2 To implement the recommendations of the Comprehensive Recreation and Parks Master Plan 2003 starting with the identified 2003-2005 priorities.

Strategy 9.1.3 To establish and maintain a riparian buffer on the creek banks of Blacks Run in Purcell Park to help protect and clean run-off and ground water going into Blacks Run.

Objective 9.2 To integrate parks and recreation programs fully into the City's environmental programs and policies.

Strategy 9.2.1 To assign Parks and Recreation Department staff to work with the Department of Planning & Community Development and Public Works staff so as to coordinate the department's activities with other City environmental initiatives as recommended under Goal 8.

- Strategy 9.2.2 To include water and air quality improvement measures developed under Objective 8.2 into park plans.
- Strategy 9.2.3 To apply environmental performance standards developed under Objective 8.3 to all park development projects.
- Strategy 9.2.4 To involve the Stream Health Coordinator in establishing water and air quality improvement measures developed under Objective 8.2 into park plans.
- Objective 9.3 To enhance facilities and programs to fully serve the population's diversity of needs.
- Strategy 9.3.1 To serve needs identified in public meetings and in the telephone survey administered during the development of the Comprehensive Recreation and Parks Master Plan 2003.
- Strategy 9.3.2 To develop and implement an ongoing process for evaluating public recreation needs, e.g., through general surveys, user surveys, public input meetings, and task forces.
- Objective 9.4 To develop, to the extent possible, an interconnected, accessible network of park and recreational facilities through development of a greenway system.
- Strategy 9.4.1 To create, to the extent possible, a network of pocket parks or green spaces that connect the City's parks with trails and linear open spaces. The Blacks Run Greenway plan describes such a greenway. Similar greenways are recommended along Cooks Creek and along a Norfolk Southern rail line recommended to be abandoned as described under Transportation Strategy 10.2.5.
- Strategy 9.4.2 To design the greenways not only to provide recreational opportunities, but also to provide riparian habitat, protection from flooding, pollution filtering and visual relief from urban development, to the extent possible.
- Strategy 9.4.3 To preserve the environmental and recreational values of these lands through enlightened conservation practices on City-owned lands and cooperative efforts with private landowners. The latter might include the purchase, acceptance of donation, and acceptance of proffers of land and easements from willing participants.
- Objective 9.5 To commit to providing high quality well distributed parks and recreation facilities.
- Strategy 9.5.1 To implement improvements at existing parks and recreation facilities as recommended in the Comprehensive Recreation and Parks Master Plan 2003, including major improvements as follows:
- expansion of the Cecil F. Gilkerson Community Center

- continue the development of Smithland Road Park property into a major community and athletic park.
- development of the Smithland Road property into a major community and athletic park.

Strategy 9.5.2 To plan for and develop a limited number of new parks as recommended in the Comprehensive Recreation and Parks Master Plan 2003, including:

- neighborhood parks in the Waterman, Stone Spring, and Simms voting precincts
- several new miniparks in urban areas around the City, including downtown
- a new community recreation center in the southeastern sector of the City.

Strategy 9.5.3 To cooperate with the public schools in making school recreation facilities available to the general public, as appropriate.

Objective 9.6 To enhance the appearance, safety and maintenance of parks and recreation facilities.

Strategy 9.6.1 To improve security at existing parks by evaluating use patterns, operation hours, visibility and maintenance.

Strategy 9.6.2 To create a set of specific design guidelines and standards for City parks and facilities addressing landscaping, architectural design, accessibility, safety and crime prevention.

Strategy 9.6.3 To incorporate ample landscaping in all park development.

Strategy 9.6.4 To provide high quality maintenance so as to increase the effective use of facilities and maintain an attractive appearance.

Strategy 9.6.5 To improve security in existing parks by evaluation use pattern, operating hours, visibility and maintenance.

Strategy 9.6.6 Work in cooperation with Harrisonburg Police Department to establish police patrols and presence and hiring a security firm to monitor parks during peak usage seasons.

Legend

Parks and Recreation Facilities

- BIKE TRAILS
- COMMUNITY CENTER
- GOLF COURSE
- PARK
- PROPOSED PARK
- RECREATION CENTER
- SOCCER FIELDS
- SOFTBALL FIELDS
- TENNIS COURTS

Parks and Recreation Facilities COMPREHENSIVE PLAN

City of Hammonburg
A Shared Vision for the Future

Draft March 2011

Map Provided by the City of Hammonburg
Department of Community Development



Every reasonable effort has been made to ensure the accuracy of these maps and associated data. The City of Hammonburg assumes no liability for errors or omissions in these maps or data. THE MAPS ARE PROVIDED WITHOUT WARRANTY OF ANY KIND. After approval or rejection, the City of Hammonburg shall not be held liable for any errors or omissions in these maps or data. Any errors or omissions should be reported to the City of Hammonburg Department of Community Development.

Chapter 11 Transportation

Introduction

The Harrisonburg transportation system is comprised of several varying elements including an interstate highway, principal arterial roadways, a local road system, mass public transit, pedestrian facilities, bicycle facilities, public parking, and railroads. All facets of this system require constant maintenance, upgrades, replacement, and additions in order to serve the City's population properly. Each element of the system is complimentary to the others and serves the community as a network. Increasing usage on one element will likely cause a decreased usage on another.

It is important to note that transportation and land use should be linked. Changes in land use can change traffic patterns and affect the demands on transportation resources. There is growing scientific evidence that the provision of transportation improvements can have impacts on the demand for new development as well as on the welfare of existing neighborhoods and commercial areas. In 2007, the Virginia General Assembly passed significant legislation that intends to coordinate transportation with land use. House Bill 3202 made specific provisions that require localities to coordinate major land use changes with adjoining jurisdictions.

City Road Network

Classification System: The City road system consists of multiple classification designations that correspond to traffic volumes or design criteria. The Virginia Department of Transportation (VDOT) classifies streets as local, collector, or arterial. As of 2010, the City had 316.26 lane miles of local, collector, and arterial streets. Local streets provide direct access to adjacent land and make up a majority of the transportation network, but carry a small proportion of vehicle miles traveled. All local streets are assigned a speed limit of 25 mph unless otherwise posted. Collector streets are intended to support moderate to heavy levels of traffic, routing traffic from, and sometimes through, residential areas to employment centers and shopping areas. Speed limits assigned to these streets range from 25 mph to 40 mph depending on design, traffic volumes, pedestrian presence, and other factors.

Arterials are designed and intended for consistently heavy traffic volumes, and usually connect towns and provide linkages to interstate systems. While arterial streets comprise a smaller percentage of lane miles, they support the majority of vehicle miles traveled in the City. Speed limits range from 25 to 60 mph.

Accepted streets must meet design criteria from the City's Design and Construction Standards Manual (DCSM) and also those put forth by VDOT. Unaccepted and/or private streets receive restricted City services. For the most part, the City is not responsible for maintenance on those streets and roads. The City also has a number of undeveloped "paper" streets, which are streets that were planned and platted, but have not yet been built. Some of these paper streets meet the City's requirement of 50-foot of right-of-way width, while others have considerably narrower right-of-ways. Future street construction/extension can take place in order to improve traffic flow or facilitate land development. In some cases, paper streets provide a possibility for shared use path connections. In the case of private development, construction costs are the responsibility of developers or residents.

The Street Network Map, provided at the end of this chapter, illustrates the current street classifications of City streets.

Transportation Funding: In the Commonwealth of Virginia, any town or city with a population of 3,500 or greater is responsible for maintaining their own transportation facilities. Through VDOT, the City is eligible to receive funding from two sources: Highway Maintenance Account Funds and Urban Construction Funds. The former can only be used for eligible maintenance activities on existing facilities while the Urban Construction Fund is earmarked for new construction projects and allocated to projects in the Commonwealth's Six Year Improvement Program (SYIP). Funding levels that localities receive for both maintenance and construction are ultimately determined by the General Assembly through the biennial budget process and then appropriated funding is prioritized and allocated by gubernatorial appointed members of the Commonwealth Transportation Board. Cities and towns receive funding on an annual basis.

The City competes for construction funding with other localities in the Staunton District, which includes the Counties of Frederick, Shenandoah, Page, Rockingham, Augusta, Alleghany, Rockbridge, Bath, and Highland along with the qualifying incorporated towns and cities located within each. Maintenance funds are determined based on the number of lane miles in a community, and in Fiscal Year 2010 the City received \$3.7 million from the VDOT Maintenance Account.

Historically, maintenance funding increases approximately 3 to 4 percent each year. However, with the economic downturn, the Urban Construction Fund has significantly decreased for the City, which is consistent with the outcome for other localities throughout the state. In Fiscal Year 2007-2008, the City received \$1,433,000 in urban construction funds. In Fiscal Year 2010-2011, the City anticipates receiving only \$38,000. Recent economic realities have led to increased devolution by the state in allowing localities to take on more responsibility for managing and constructing road projects. However, funding restrictions have presented challenges to the City to keep projects on schedule.

The City has developed a maintenance and road project program on a three-pronged approach, which involves federal, state, and local funds. The City and its leaders have realized that it can utilize federal and state dollars to advance projects, however, significant contributions have been made from local coffers to keep projects moving forward.

Urban Construction Initiative: Harrisonburg is one of eleven urban communities in the Commonwealth that is a member of VDOT's Urban Construction Initiative. In the past, all urban localities have left road construction projects to VDOT to provide the majority of funding, project design, and construction management. The City's involvement in this initiative has resulted in finding ways to streamline the VDOT process and to take project management roles at the local level opposed to the state level. This has led to the development of a Certification Program that is available as of 2009 to qualifying localities in Virginia. This translates to less state government oversight, and more decision making responsibility at the local level. Certified localities will be required to abide by all state guidelines.

Traffic Signals & Street Capacity: As of early 2011, the City has 85 traffic signals; many of which include pedestrian crosswalks (42 intersections with signalized crosswalks; 19 intersections marked but have unsignalized crosswalks). The Street Network Map, provided at the end of this chapter, illustrates the location of current signalized intersections. Traffic signals should only be installed when and where warranted based upon the criteria set forth by the Federal Highway Administration (FHWA). There are a series of warrants for traffic signals that focus on traffic volumes, time amount of delay, accident history, and pedestrian presence. The City's goal is that all streets and intersections should operate on a Level of Service (LOS) "C" or better at all times. During peak hours, congestion occurs along arterial corridors during which the LOS drops to "D," "E," or in some locations, the worst level of service, grade "F".

Transportation Management Program: This Program's mission is to improve the quality of service of all modes of transportation in the City through the optimization of traffic signal function, including the programming, timing, and coordination of plans along corridors and consultation on intersection design enhancements. The program manages and regularly updates traffic volume and composition studies used to create models of traffic flow to assist in planning decisions.

As James Madison University (JMU) experiences increasing enrollment, new development occurs causing more people to move into the Harrisonburg community, therefore, it will become increasingly important for our transportation corridors to be re-evaluated and for traffic signal functions and intersection designs to be optimized.

Transportation Safety & Advisory Commission: City Council appoints a Transportation Safety & Advisory Commission comprised of four appointed "at-large" citizens and two City staff to make recommendations on issues related to traffic safety in the City. The Commission meets on a monthly basis and discusses complaints, concerns, and suggestions that are forwarded to them by citizens or City departments. Recommendations for improvements are typically directed to the Public Works Department and are funded through the department's operating budget; larger projects may be incorporated into the Capital Improvement Program. In 2010, a Bicycle & Pedestrian Subcommittee was established by the Commission following City Council action to formally add bicycle and pedestrian matters as an additional area of responsibility of the commission. The subcommittee works with the Commission, staff, and citizens to identify needs and opportunities for improving the City's network of bicycle and pedestrian facilities.

Neighborhood Traffic Calming Program (NTCP): The Public Works Department administers the City adopted Neighborhood Traffic Calming Program in partnership with the Police Department and others to improve the character and appropriate use of local streets in neighborhood areas by incorporating community awareness and education, motorist education, enforcement, and physical devices. Neighborhood involvement in the program requires that neighbors submit an enrollment form to the Public Works Department with a majority of the residents' signatures, agreeing that there is a "perceived traffic problem." Staff conducts speed and volume studies to determine whether the perceived traffic problem can be substantiated. City staff and neighborhood representatives will then hold a neighborhood meeting to solicit input from neighbors and begin developing passive solutions to traffic problems, which may include striping, signage, education, and/or enforcement. City staff will then re-analyze after

implementation of suggested solutions. If passive traffic calming measures are deemed ineffective after being reanalyzed, physical roadway changes such as chicanes, traffic circles, raised speed tables, and/or speed humps, could be installed.

Any physical improvement that would restrict traffic must be considered by emergency response departments including Police and Fire. Physical improvements are constrained by available funds and strong neighborhood consensus. There have been five City neighborhoods that have enrolled in this program since its inception in 2002.

Master Transportation Plan: The Master Transportation Plan, which establishes the City's long-range transportation policies and road projects, includes the Street Improvement Plan, along with the Bicycle & Pedestrian Plan and the Public Transportation Department's Transportation Development Plan. The Street Improvement Plan maps the details for needed improvements and new facilities. The locations of the improvements are often within or adjacent to property that has yet to develop. Identifying future improvements allows the City to work with property owners and developers to implement complete street construction.

There are several new streets shown on the Street Improvement Plan that would be "local" streets intended to promote increased connectivity between and within residential communities. The need for these roads will be driven primarily by development of surrounding areas and not by the need of the public at large. For this reason, although the City will encourage their construction, they are anticipated to be funded and constructed by private developers as property in the surrounding area is developed.

A full list of the proposed road improvement projects, as included in the Street Improvement Plan Map, can be found in Table 11-1. The table and the associated Street Improvement Plan Map, provided at the end of this chapter, are separated into quadrants by Main Street and Market Street.

Pedestrian and bicycle facilities shall be considered with all new road projects and improvements. A list of proposed pedestrian and bicycle facilities can be found in the City's adopted Bicycle & Pedestrian Plan. These proposed improvements should also be coordinated with Rockingham County's Comprehensive Plan and JMU's Comprehensive Master Plan.

Table 11-1: Street Improvement Plan – Recommendations and Cost Estimates
Northwest

A. Northwest Connector. Construct a new limited-access facility extending from Garbers Church Road at West Market Street and connecting it with Interstate 81 Exit 251 in Rockingham County. Note: cost estimate provided is for improvements within City limits.	\$350,000
B. Mount Clinton Pike from proposed Northwest Connector to Virginia Avenue. Widen the street to a three- or four-lane facility with a median and bicycle and pedestrian facilities; some parts are located within Rockingham County. Note: cost estimate provided is for improvements within City limits.	\$4,300,000
C. Intersection Improvement at Mount Clinton Pike, Park Road, and Chicago Avenue. In conjunction with the Mount Clinton Pike and/or Chicago Avenue improvements; consider a possible roundabout or other intersection improvement.	\$430,000
D. Mount Clinton Pike to Acorn Drive Connector.	\$650,000
E. Acorn Drive to Friendship Drive Connection. Note: Friendship Drive is in Rockingham County.	\$375,000
F. Intersection Improvement at Virginia Avenue and Acorn Drive. Install new traffic signal.	\$165,000
G. Intersection Improvement at Liberty Street and Acorn Drive. Install new traffic signal.	\$165,000
H. Parkwood Drive. Construct a three lane facility including a median.	\$400,000
I. Summit Avenue to West Market Street Connections. Includes connecting Hillside Avenue to College Avenue.	\$600,000
J. Chicago Avenue from Mt. Clinton Pike to 3rd Street. Create a center turn lane along with pedestrian and bicycle improvements.	\$7,000,000
K. Intersection Improvement at Chicago Avenue and Waterman Drive. Consider a roundabout design or other intersection improvement.	\$500,000
L. Virginia Avenue from West Gay Street to 5th Street.	\$2,500,000

Widen to a four-lane facility, remove on street parking, and replace storm drain system.	
M. Intersection Improvement at Virginia Avenue/High Street and West Gay Street. Widen the intersection to accommodate truck traffic and extend the westbound left turn lane.	\$350,000
N. North Liberty Street from Edom Road to North City Limits. Reconstruct and widen to create a center turn lane, add curb and gutter, bicycle lanes, and install storm drains.	\$4,600,000
O. West Washington Street. Make improvements from North Main Street to Liberty Street.	\$125,000

Northeast

A. North Main Street from Noll Drive to Charles Street. Create a center turn lane, remove parking. Consider bicycle lanes if possible.	\$600,000
B. North Main Street from Charles Street to Mt. Clinton Pike. Create a center turn lane and construct bicycle and pedestrian facilities.	\$2,000,000
C. North Main Street to Smithland Road Connector. Improve to a four-lane facility on Vine Street and construct new alignment between Vine Street and Smithland Road. Note: Cost estimate provided is for sections within city limits.	\$400,000
D. Smithland Road. Construct four lane facility with bicycle and pedestrian facilities and raised median from intersection of Linda Lane to Old Furnace Road at I-81.	\$3,000,000
E. East Washington Street Extended. Extend East Washington Street into Rockingham County to intersect with the North Main Street to Linda Lane Connector and to North Main Street at the Technology Park.	\$200,000
F. Intersection Improvement at East Washington Street and Vine Street. Widen road to add a left turn lane on East Washington Street. Add northbound left turn lane on Vine Street.	\$75,000
G. Interchange Improvement. Construct I-81 interchange ramps at Smithland Road and Buffalo Drive and reconstruct	\$20,000,000

the bridge.	
H. Intersection Improvement at Smithland Road and Old Furnace Road. Construct possible roundabout.	\$200,000
I. Longview Drive and Vine Street. Reconstruct intersection and extend new road to City limits to connect with Leyland Drive in Rockingham County.	\$150,000
J. Keezletown Road. Construct a two-lane facility with median and bicycle and pedestrian facilities.	\$2,000,000
K. Interchange Improvements at East Market Street and I-81 (Exit 247). Remove clover leaves and install new traffic signals and other improvements.	\$4,000,000
L. East Market Street. Add lane to westbound facilities between east City limits and Country Club Road for a total of three lanes.	\$1,500,000
M. Rebuild the two East Market Street bridges over Railroad and improve East Market Street from I-81 to Cantrell Avenue.	\$16,000,000
N. Country Club Road from East Market Street to I-81 Bridge. Construct a three lane facility including a center turn lane with bicycle and pedestrian facilities.	\$3,400,000
O. Cantrell Avenue Extended and Country Club Road from I-81 Bridge to Vine Street. Extend Cantrell Avenue from East Market Street into Country Club Road. Create new intersection with Country Club Road and Country Club Court. Add sidewalk and bike facilities to Cantrell Avenue and Country Club Road.	\$2,500,000
P. Linda Lane from East Market Street to Country Club Road. Widen to a five-lane facility with pedestrian facilities.	\$7,100,000
Q. Old Furnace Road. Between Vine Street and Smithland Road, improve to a three lane facility including center turn lanes and bicycle and pedestrian improvements.	\$2,500,000
R. North Carlton Street. Improve to a three lane facility including center turn lanes, sidewalks and storm drain facilities.	\$450,000
S. East Market Street Safety Improvements between Linda	\$1,000,000

Lane and Chestnut Ridge Drive. Redesign crossovers from private entrances at three locations to reduce motor vehicle conflicts, improve turning lanes, construct new sidewalks, and install pedestrian crosswalk signals.	
T. Intersection Improvement at University Boulevard and East Market Street. Extend eastbound left turn lane.	\$150,000
U. Intersection Improvement at East Market Street and Country Club Road. Widen Country Club Road at East Market Street to accommodate dual left turn lanes off of Country Club Road.	\$500,000
V. Intersection Improvement at Keezletown Road and Country Club Road. Include new traffic light.	\$300,000

Southeast

A. Reservoir Street. Improve Reservoir Street to a four-lane facility between East Market Street and Cantrell Avenue with turn lanes at specific intersections and bicycle and pedestrian facilities.	\$1,200,000
B. Reservoir Street from University Boulevard to Health Campus Drive in Rockingham County. Create a four-lane facility with a center turn lane, including pedestrian and bicycle facilities and enhancing traffic flow at intersections. Note: Cost estimate provided is for sections within City limits.	\$8,000,000
C. Lucy Drive from Purple and Gold Way to Reservoir Street. Construct a three-lane facility.	\$200,000
D. Intersection Improvement at Ridgeville Lane and Foley Road.	\$1,200,000
E. Norwood Street to East Market Street Connections. Construct a local street to connect Norwood Street, Hawkins Street, Franklin Street, Highland Avenue, Long Avenue and East Market Street.	\$200,000
F. Port Republic Road, Neff Avenue, University Boulevard Connection. Construct connection for, at minimum, pedestrian and bicycle use, and consider public transit use.	\$400,000
G. Intersection Improvement at University Boulevard and Evelyn Byrd Avenue. Widen lanes to accommodate new	\$300,000

left turn lanes in all directions.	
H. Intersection Improvement at University Boulevard and Carrier Drive. Install new traffic signal.	\$170,000
I. Neff Avenue from Port Republic Road to Turner Ashby Lane. Widen roadway and add median.	\$1,400,000
J. Interchange Improvement at Port Republic Road and I-81 (Exit 245) and Capacity Improvements on Port Republic Road.	\$20,000,000
K. Skylark Lane to Port Republic Road Connections. Note: Cost estimate provided is for sections within City limits.	\$300,000
L. Southeast Connector. Construct in Rockingham County, a facility that connects Route 33, Port Republic Road, and the new Erickson Avenue-Stone Spring Road.	In Rockingham County
M. Peach Grove Avenue Extended From Terminus of Peach Grove Avenue and Greendale Road in Rockingham County.	In Rockingham County
N. Devon Lane to Stone Spring Road Connection.	\$150,000
O. Mineral Springs Road to Stone Spring Road Connection.	\$150,000
P. South Main Street from Grattan Street to Port Republic Road. Construct landscaped median, replace waterline where necessary, install enhanced crosswalks, upgrade traffic signals, and replace street lighting.	\$1,400,000
Q. Intersection Improvement at South Main Street and Port Republic Road. Create slip lane and pedestrian refuge on Port Republic Road traveling westbound turning right northbound onto South Main Street.	\$250,000
R. South Main Street from Interstate 81 (Exit 243) to Route 704 in Rockingham County. Widen to a four-lane facility with a median. Improve the intersection of South Main Street and Covenant Drive. Note: cost estimate provided is for improvements within City limits.	\$7,400,000
S. East Kaylor Park Drive to South Gate and Boxwood Court Connection. Realign Boxwood Court.	\$500,000
T. Pleasant Valley Road from South Main Street to south City limits. Improve to a three lane facility including a	\$5,000,000

center turn lane with bicycle and pedestrian facilities.	
U. Greendale Road to Early Road Connection. Widen to three lane roadway with bicycle lanes and bridge over railroad.	\$8,400,000
V. Willow Springs Road to Cecil Wampler Road Connection in Rockingham County.	In Rockingham County
W. Intersection Improvement at South Main Street and South Avenue. Widen intersection at South Main Street and South Avenue to accommodate additional lanes on South Avenue.	\$250,000
X. Intersection Improvement at Reservoir Street and Carlton Street with roundabout or other improvement.	\$350,000
Y. Intersection Improvement at Reservoir Street and Cantrell Avenue. On Cantrell Avenue traveling eastbound onto Reservoir Street, construct dedicated right turn lane, slip lane and pedestrian refuge and provide for dual left turn lanes off of Reservoir Street.	\$350,000
Z. Cantrell Avenue between South Main Street and Ott Street and Intersection Improvement at Cantrell Avenue and South Main Street. Add a fifth lane on Cantrell Avenue from South Main Street to approximately 300 feet east of Ott Street with bicycle lane accommodations if possible. At intersection on South Main Street, add northbound right turn lane.	\$1,000,000
AA. Interchange Improvement. Reconstruct Exit 243.	\$25,000,000
BB. South Connector. Construct a new limited-access facility connecting South Main Street at Exit 243 to proposed Southeastern Bypass in Rockingham County. (Alternative routes considered.) Note: Cost estimate provided is for sections within City limits.	\$2,000,000
CC. (Old) Stone Spring Road Intersection Removal. Cul-de-sac old Stone Spring Road.	\$100,000

Southwest

A. Erickson Avenue-Stone Spring Road Connector. Construct four to five lane facility between west City limits on Erickson Avenue to east City limits on Stone Spring	\$64,000,000
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Road. Connections to Route 33 and Port Republic Road in Rockingham County. Phase I has been completed, and Phase II is under construction. Phases III and IV remain to be funded. Note: cost estimate provided is for total improvements within city limits.	
B. Pear Street and South High Street Intersection. Removal of intersection and street crossing at railroad. Construct cul-de-sac on Pear Street.	\$150,000
C. Baxter Drive Extended. Construct facility between South Main Street and West Mosby Road in Rockingham County.	In Rockingham County
D. Peoples Drive Extended From the Terminus of Peoples Drive to Baxter Drive at Tasha Circle.	\$150,000
E. Carpenter Lane. Realign Carpenter Lane with intersection of Pike Church Road at South Main Street.	\$480,000
F. Southwestern Connector Proposed. Construct a new limited-access facility from southern terminus of Garbers Church Road and Cecil Wampler Road. Improvements to Garbers Church Road from South High Street (Route 42) to Erickson Avenue. Note: Two possible routes proposed.	In Rockingham County
G. Hidden Creek Lane Extended From Terminus of Hidden Creek Lane to Garbers Church Road with Connection to Erickson Avenue.	\$500,000
H. Willow Hill Drive Connection to Pleasant Hill Road.	\$200,000
I. Neyland Drive to Wyndham Drive Connection.	\$200,000
J. Intersection Improvement at South Main Street and Fairview Drive. Create a "right-in right-out" only at the end of Fairview Drive onto South Main Street or remove the intersection by constructing cul-de-sac or other terminus at the end of Fairview Drive.	\$50,000
K. Maplehurst Avenue Extended. Construct a road between Harrison Street and South Main Street.	\$60,000

Other

A. Interstate 81 from South City Limits to North City Limits. Widen to six lanes or more and include the reconstruction of Buffalo Drive and additionally reconstruct Exit 251 in Rockingham County. Consider additional access points at Route 704 south of the

City in Rockingham County and at Old Furnace Road in the City.

B. Railroad Relocation. Relocation of the Norfolk Southern Railroad from within City limits to Rockingham County.

Bicycle & Pedestrian Facilities

In 2010, a Bicycle & Pedestrian Subcommittee was formally established by the Transportation Safety & Advisory Commission following City Council action to formally add bicycle and pedestrian matters as an additional area of responsibility of the commission. The subcommittee works with the Commission, staff, and citizens to identify needs and opportunities for improving the City's network of bicycle and pedestrian facilities.

The City recognizes the need to encourage bicycle and pedestrian travel, as they reduce traffic congestion, contribute to cleaner air, conserve energy, promote physical fitness, and result in a more pleasant atmosphere. The City's Bicycle and Pedestrian Plan lists project priorities so the City can appropriately plan and implement improvements when necessary and feasible.

As traffic levels and associated congestion increase within the City, so does the need for a more encompassing system of bicycle facilities and pedestrian walkways. This deficiency is something that many residents in the City would like to see remedied. Better sidewalks, bicycle facilities or shared use paths placed between high-density residences and points of common destinations would help alleviate some of the growing traffic numbers throughout the City. Citizens are interested in having sidewalks installed leading to parks, schools, and other frequented destinations.

Pedestrian Facilities: The Public Works Department maintains all public sidewalks within the City limits, which for the most part are parallel to streets located within the street right-of-way. Though as of 2009 the Public Works Department presently maintains over 60 miles of sidewalk within the City, opportunities for pedestrian traffic remain limited. This deficiency is something many residents of the City would like to see remedied.

In addition to pedestrian infrastructure needs collected by the City's Bicycle & Pedestrian Committee, in partnership with schools and parents, the City has been evaluating and improving safe routes to schools and applying for funding through the VDOT Safe Routes to School program, which has resulted in funding for new sidewalk construction around Keister and Waterman Elementary Schools. According to the Comprehensive Recreation and Parks Master Plan, walking trails are one of the most requested improvements those polled within the City would like to see made.

Bicycle Facilities: The City adopted its first Bicycle Plan in 1994, and then adopted an update in 1999, 2005, and 2010. The 2010 Plan is a combined bicycle and pedestrian plan. By generating an awareness of bicycling issues, the plan prompted the City to include bicycle facilities in the design and construction of several new streets including Neff Avenue, Port Republic Road, Linda Lane, and within the Erickson Avenue-Stone Spring Road project and to retrofit existing roadways to add bicycle lanes such as those on South Main Street, Vine Street, and Park Road.

The Plan also promotes awareness of funding mechanisms the City has used to obtain grant funds for changes to existing roadways.

Off Road vs. On Road Facilities: Planning and designing new transportation routes that include sidewalks, bicycle routes, and shared use paths are essential to the success of an alternative transportation system. Where feasible and possible, the City makes adjustments during regular routine maintenance to accommodate bicyclists and pedestrians. The City works proactively to incorporate these elements into new roadway projects and retroactively when developing street widening projects. It is recognized that there are many residents that enjoy riding bicycles, walking, or jogging on shared use paths that are separated from the roadway, while some bicyclists prefer to ride on existing streets, preferably in bicycle lanes, but also with motorized traffic. There are challenges with providing off road facilities adjacent to streets that serve adjacent land uses that create confusion for motorists and bicyclists alike. The City has identified that in the event of creating a limited access roadway—one which restricts or prohibits private drive entrance connections—a shared use path is ideal. This creates a safer environment for bicyclists where motorized traffic is generally traveling at higher speed rates. Where adjacent land use access connections are prevalent, the on-street bicycle lane is preferred.

Blacks Run Greenway Plan: Blacks Run is a six-mile-long stream that runs through the City, connecting neighborhoods in the north and south with downtown businesses, parks, and housing. Friends of Blacks Run Greenway (FBRG), a public-private organization that was formed in the fall of 2000, worked to establish a greenway path that would parallel Blacks Run and developed a Master Plan to develop concepts for construction of the trail. Significant challenges existed in the Master Plan and required the acquisition of significant easements and right-of-way. The trail was proposed to be adjacent to or directly through many industrial uses in the southern end of the City. The City's adopted Bicycle & Pedestrian Plan includes complementary and alternative routes to the Greenway Master Plan, which still meet the intent of the plan developed by FBRG.

Parking

Adequate and conveniently located parking is an important component of the City's transportation network. Sufficient and well-designed public parking can assist in enhancing the City's alternative transportation network. Parking decisions have shifted from a Council appointed authority to City staff.

In the downtown area, the availability of parking is a long standing concern for its many diverse users. Two major parking structures were built in the 1970's as economic development tools to encourage businesses to remain in the downtown area. In 2006, metered parking spaces were removed throughout downtown.

By ordinance, in designated areas, the City has "zone parking," which makes on-street parking reserved only for neighborhood residents and their guests. For zone parking to be available, it must be verified that at least 25 percent of cars parked on-street of a residential zone must be nonresidents. Additionally, it is incumbent upon the residents to submit a petition of at least 50 percent of the residents to create a restricted parking zone. Three zones have been established, all of which have differing criteria.

JMU issues parking passes for a fee for the many students, faculty, and staff that commute to campus on a daily basis. A parking permit, however, does not guarantee availability of parking. Neighborhoods adjacent to the University are often attractive locations for campus-related parking. JMU's Comprehensive Master Plan indicates the expansion of existing parking amenities while also proposing new parking facilities. The City and JMU continue to work in collaboration to facilitate and improve the many issues with parking in the City, including improving bicycling, walking, and public transportation options.

Mass Transit

The Harrisonburg Department of Public Transportation (HDPT) began operation in November 1976 with the purchase of two taxi companies that were operating at a deficit and had planned to discontinue operations. Immediately after this purchase, efforts were made by the HDPT to coordinate all mass transit operations within the City. The Harrisonburg City School System, the Valley Program for Aging Services, Harrisonburg Social Services, the Health Department, and various other organizations participated in this coordination. In May 1977, City Council approved the purchase of three mini buses to begin a fixed-route system within the City. In October 1978, transit service began, with emphasis on the transportation needs of students and the elderly. HDPT also took over the operation of the public school's special education van and a vehicle that was used by the Valley Program for Aging Services.

Today, HDPT controls all of the public transportation operations that the City offers to its residents and visitors. In 2007, total transit ridership was 1,492,318. Transportation services provided by HDPT include: fixed-route mass transit buses, school buses, and paratransit operations to serve persons with disabilities—these include wheelchair-accessible buses.

Funding for these services is provided by the City, JMU, the Virginia Department of Rail and Public Transportation (VDRPT), and the Federal Transit Administration (FTA). HDPT is considered a small urban 5311 property for purposes of federal funding. The bus service has become an integral service to JMU, its students and staff, and helps alleviate traffic congestion. In the past few years, however, concerns have arisen over an increase in the number of commuter student parking permits issued by JMU, which has encouraged off campus students to drive to campus in place of utilizing the transit buses. The projected growth in the JMU student population and the corresponding increase in vehicular traffic, on roadways adjacent to the university, are a cause of great concern to the City as increasing traffic congestion has a direct and deleterious impact on our ability to operate mass transit services on a reasonable timetable.

Expanded Transit Operating Hours: To better meet the needs of our citizens, transit service should be available to them when they most need it. The current operating hours of the City routes are from approximately 7:00 a.m. until approximately 7:00 p.m. As many of our riders are employed in industries that are not limited to traditional working hours, an effort should be made to expand existing hours of service to provide more service hours later each day to better serve the transportation needs of City citizens.

Operational Upgrades at JMU: JMU is a major generator of trips that are served by public transportation. The historic growth of JMU has provided a great deal of impetus for the City to grow and expand its mass transit services. According to the JMU Office of Institutional

Research, in 2002 JMU's fall enrollment stood at 15,612; by 2013 the State Council for Higher Education in Virginia (SCHEV) projects a total JMU fall enrollment of 19,996, an increase of 28 percent in a little more than a decade. This growth will place a greater demand for mass transit services. The proposed closure of the JMU campus to private vehicles, as outlined in their Master Plan, will most likely cause demand for transit services to increase as well.

- a. On/Near campus transit center: HDPT has currently reached a virtual limit to the number of transit buses that can be housed in the Godwin Hall Parking Lot. The addition of more vehicles to serve the growing campus population will require the identification of suitable layover points for buses and may require the construction of a dedicated mass transit center on or adjacent to the JMU campus.
- b. Dedicated Transit Bus-Way: The current operation of HDPT buses in mixed traffic conditions without dedicated pull-off lanes, especially on roads adjacent to campus such as Port Republic Road, South Main Street, Cantrell Avenue, and Reservoir Street, create operational inefficiencies in both the delivery of transit services—having to contend with private vehicles—as well as the flow of private vehicular traffic. To address these operational inefficiencies, City staff will seek to identify appropriate corridors and deploy the required mechanisms for dedicated mass transit facilities where feasible.
- c. Bus pull-offs on JMU Campus: Mass transit operations on the JMU campus could be made considerably more effective with the installation of dedicated bus pull-offs on Carrier Drive and Bluestone Drive, as well as the proposed Grace Street Transit corridor. The ability for a bus to pull out of the flow of traffic and standby at strategic locations to await passenger boarding and alighting increases can do a great deal to improve the efficiency and schedule adherence of mass transit. HDPT hopes to work with JMU to identify and construct the appropriate bus pull-off facilities on and around the JMU campus.
- d. Bus arrival time system: HDPT plans to deploy an electronic system that will allow transit customers to receive real-time bus arrival estimates at bus stops for transit services. The information can be received by automated instant messages, accessed by web-browsers on computers or by cell phones equipped with mobile web-browsing software, or even display on LCD/LED displays deployed at individual bus stops. This system would aim to reduce the anxiety associated with uncertainty about bus arrival times and increase the confidence that a passenger had not missed the bus.

Service Expansion to Rockingham Memorial Hospital (RMH): The opening of the new RMH campus provides a unique set of challenges to the City in its provision of mass transit services to the Harrisonburg community. As the hospital has moved from a location within the City limits to a site in the County, increased coordination and communication with Rockingham County and the Harrisonburg-Rockingham Metropolitan Planning Organization (HRMPO) is essential to future public transit infrastructure in the area.

Downtown Harrisonburg: The accessibility of the many commercial, cultural, and governmental services that exist in the downtown area is important to HDPT. As more urban renewal takes place downtown, the need for mass transit services will grow. Along with the growth in demand for transit services there will be a need for a dedicated downtown transfer

center that can accommodate a larger number of vehicles than currently serve the downtown area. The existing transfer location at the Hardesty-Higgins House is not sufficient to accommodate the number of buses that currently serve the downtown area nor can it handle more buses from the increased demand that downtown development would require. As is it not an exclusive transit facility, drivers and passengers must continually contend with traffic generated by delivery trucks, private vehicles, and many other users of Bruce Street.

In light of these facts, the City intends to identify suitable locations in or around the downtown area on which to construct a dedicated transfer location that can accommodate a sufficient number of buses. Additionally, this transfer location may contain bicycle and pedestrian accommodations, a taxi cab stand, and a location for the launching of intercity bus operations that may locate in the City. In effect, it would serve as a hub for multi-modal transportation operations with easy access to the downtown area.

Construction of New Transit Facility: The current facility which houses HDPT operations was originally constructed in 1982, and despite subsequent additions, is currently approaching the end of its useful life. The growth in mass transit services provided by HDPT has placed a great deal of stress on the existing facility. The City commissioned Parsons-Brinckerhoff to conduct a feasibility study to evaluate HDPT's needs for a new transit facility and hopes to have a new building constructed within the next three to five years.

Bus Stop Evaluation, Monitoring, and Improvement Program: Bus stops are an integral part of any mass transit system and HDPT is placing an increased emphasis on the need to upgrade the amenities at its more popular bus stops.

- a. **Bus Shelter/Bench Installation:** HDPT continues to use data collected by an Automated Passenger Counter system used to identify high traffic bus stops. Continued efforts are being made to install concrete pads, benches, shelters, trash cans, bus information display boards, and lighting as appropriate. Additional efforts will be made to install benches and/or bicycle racks at appropriate bus stops that complement existing or planned bicycle and pedestrian facilities.
- b. **Solar powered bus shelter lighting:** HDPT will attempt to place bus stop improvements in areas that take advantage of existing street lights. When this is not possible, HDPT will investigate the installation of solar power at bus shelters to provide power to illuminate the bus shelter.

Multi-Modal Nature of Transit Planning: The City recognizes that successful mass transit operations develop in tandem with an environment that provides effective pedestrian and bicycle infrastructure. The City also recognizes that a healthy transportation network should provide links between pedestrian and bicycle users to allow multi-modal opportunities for motor vehicle users. With this in mind, the City is committed to participating in planning for a vibrant multi-modal transportation environment with the appropriate federal, state, and local authorities.

Expansion of Transit Service into the Harrisonburg-Rockingham (UZA): The provision of seamless transportation services for citizens in the Harrisonburg urbanized area requires that the City work with MPO member localities to find ways to seamlessly offer transportation services across and between existing political boundaries. Specific areas for future service expansion

include the Massanetta Springs Area, an intercity bus service (i.e. to Charlottesville), and other transit service.

Investigate Methods of Electronic Fare Collection: Currently, HDPT collects all fare box revenues in a simple mechanical fare box, and is therefore incapable of integrating electronic fare media into its operations. Since the majority of HDPT passengers are JMU students, faculty, and/or staff, it would make a great deal of sense for HDPT to implement a system that would be capable of reading a JMU Access Card (JAC Card) and check to make certain that the card was valid. This system would allow HDPT to capture a greater number of dollars at the fare box, since JAC Cards from those who no longer attend or are employed at JMU continue to be used.

Computer-Aided-Dispatching/Automatic Vehicle Location: The effective scheduling and dispatching of paratransit vehicles can go a long way to creating more cost-effective service deployment. A computer program can use a GPS database to plan scheduled calls by geographical location and plan the most efficient manifest for each paratransit driver. As HDPT is very interested in reducing the cost of complementary paratransit service without compromising its quality, HDPT wishes to pursue the installation of Mobile Data Terminals and Automatic Vehicle Location technology on its paratransit fleet to achieve the cost savings that this technology promises.

Regional Transportation System

Harrisonburg is centrally located within the Shenandoah Valley and is bisected by Interstate 81, which serves as the major north-south transportation corridor along the Appalachian mountain range between New York and Tennessee. The portion of Interstate 81 located within the City's boundaries carries between 47,000-52,000 vehicles per day, which is heavily utilized by the trucking industry. Interstate 64, which carries approximately 37,000 vehicles per day, is a major east-west corridor that connects coastal metropolitan areas with inland communities as far west as St. Louis, Missouri. The interstate is accessible to the south via Interstate 81, which is approximately twenty-five miles south of the City. The close proximity of Harrisonburg to these interstates allows efficient delivery of services and makes Harrisonburg more accessible.

Metropolitan Planning Organization (MPO): Every urban region in the U.S. exceeding a population of 50,000 has a designated MPO to assist with transportation-related issues and to place the decision making process concerning transportation improvements in the hands of the localities, as opposed to being completely in the hands of VDOT. As transportation needs typically transverse political boundaries, it is important for growing jurisdictions to coordinate transportation programs and projects. The HRMPO was formed after the 2000 census, which determined that the Harrisonburg urbanized area exceeded the population threshold. The area that received this designation includes Harrisonburg, the Towns of Bridgewater, Dayton, Mount Crawford, and a portion of surrounding Rockingham County.

A policy board, comprised of local elected officials and state and local transportation agency officials, heads the HRMPO and looks at transportation on a regional scale. The board is assisted by the Technical Advisory Committee (TAC) and other special sub-committees, which provide both professional advice and relay public input to the board. The board and committees are responsible for developing a twenty-year, long-range transportation plan every five years. The

plan was last developed in August 2005. From the long-range plan, the three-year, short-term Transportation Improvement Plan (TIP) is developed and used for budgeting construction projects.

Rail Access: The City is served by three railroad companies: the Norfolk and Western Railway part of the Norfolk Southern Corporation, which travels north-south and provides local freight service to Grottoes and Elkton on a daily and requested basis; the Chesapeake Western Railway, which supplies local freight service to Harrisonburg and Elkton; and the Southern Railway, also part of the Norfolk Southern Corporation, which provides daily service to Harrisonburg and the Towns of Broadway and Timberville. There is no passenger rail service to Harrisonburg. The nearest passenger rail service is in the City of Staunton, approximately twenty-five miles to the south.

With limited grade separated crossings, this creates significant delay at railroad crossings on a daily basis. This has led to preliminary discussions between the City, County, and JMU to relocate a section of the Chesapeake & Western Railway around the northern edge of the City. This section of track currently traverses through the JMU campus. Possible alignments that would redirect this line through Rockingham County were proposed in 2005. Relocation would better serve Norfolk Southern customers and improve traffic congestion in and around the City. Relocation of the railroad could result in a conversion of portions of the existing Chesapeake & Western railway to a multi use greenway, or potentially serve as a short line trolley service to and from destinations within the City. The City had identified a federal program with dedicated funding to railroad relocations. However, since 2005, there has been little movement by stakeholders.

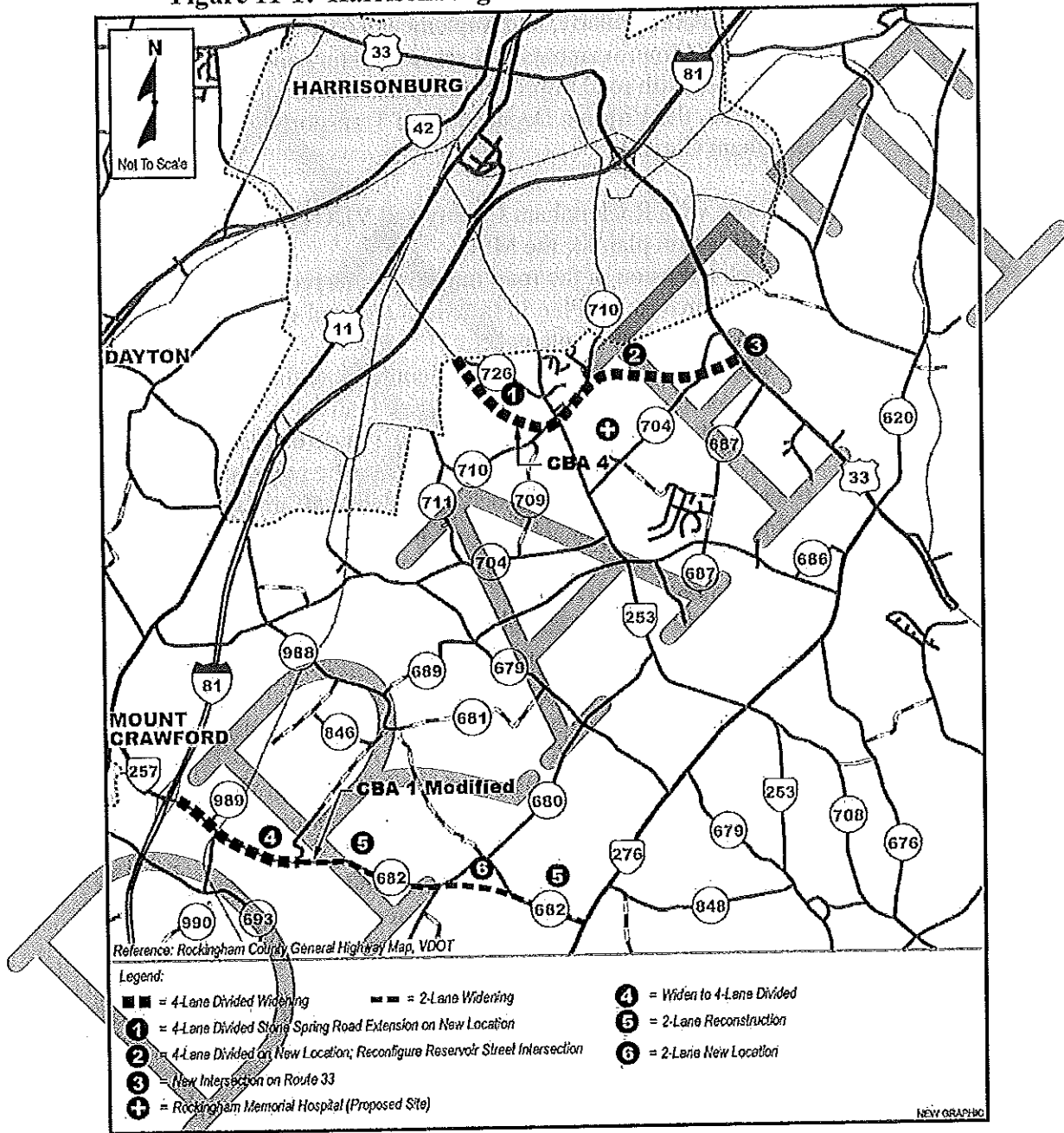
Air Transportation: The Shenandoah Valley Regional Airport is located in Weyers Cave, about 15 miles south of the City. Harrisonburg is a member of the Shenandoah Valley Regional Airport Commission, along with the cities of Waynesboro, Staunton, and the counties of Augusta and Rockingham. The airport supplies commercial flights to Dulles International Airport near Washington, DC. The airport offers door-to-door shuttle service to residents and visitors of the Airport's service area.

The Bridgewater Air Park is located approximately eight miles south of the City just outside of Bridgewater. The airport serves Rockingham County and is owned and privately operated by Rockingham Aviation Corporation. The paved runway extends 2,745 feet.

Southeast Connector: For many years, the City and County have recognized the importance of finding an alternate route to divert traffic around the City. The movement from Route 11, south of the City, to Route 33, east of the City, has been identified as a priority. A significant challenge in developing a route concept is balancing the need for efficient transportation service while maintaining a rural and agricultural base in Rockingham County. Two alignments have been developed and endorsed by the Commonwealth Board of Transportation and the Federal Highway Administration. Candidate Build Alternative 4 (CBA 4) has been prioritized and funded through VDOT's Six Year Improvement Program. This route extends the City's Stone Spring Road-Erickson Avenue project into the County, connecting with the newly relocated RMH location and eventually connecting to Route 33 close to its intersection with Boyers Road

(Route 704). A longer range vision is considered in Candidate Build Alternative 1 (CBA 1), which begins at the Mount Crawford/Bridgewater Exit 240 and would connect with Route 33 via Cross Keys Road (Route 276).

Figure 11-1: Harrisonburg Southeast Connector Location Study



**Harrisonburg Southeast Connector
Location Study**

RECOMMENDED ALTERNATIVE

Transportation Goal, Objectives and Strategies

Goal 10. To develop and maintain a safe and convenient transportation system serving all modes of travel, such as, automobile, pedestrian, bicycle and mass transit.

Objective 10.1 To adopt, update regularly, and implement a City Street Improvement Plan of needed road improvements that serves existing and future land uses and is coordinated with road improvement plans of the Metropolitan Planning Organization, the Virginia Department of Transportation, and Rockingham County.

Strategy 10.1.1 To work with Rockingham County and VDOT to maintain a regional transportation plan for the MPO.

Strategy 10.1.2 To seek inclusion of the road improvements recommended in the City Street Improvement Plan in the MPO regional transportation plan and to coordinate the two plans.

Strategy 10.1.3 To seek developer participation in completing the street network as shown on the City Street Improvement Plan.

Strategy 10.1.4 To expand the Design & Construction Standards Manual to include design standards for streets that reduce traffic congestion within the transportation system while accommodating all transportation modes. Standards should be included both for streets constructed by the City and those by the private sector specifying appropriate:

- interconnectivity of the street system
- street widths adequate to handle projected traffic volumes based on traffic impact analyses while avoiding excessive pavement widths
- pull-off areas for buses on collector and arterial streets
- bicycle facilities
- sidewalk widths and location within the street right-of-way.

Strategy 10.1.5 To include applicable standards developed under Strategy 10.1.4 in the Subdivision Ordinance, as appropriate.

Strategy 10.1.6 To limit driveway access along arterial and collector streets, thus increasing safety and facilitating efficient traffic flow.

Strategy 10.1.7 To replace and rehabilitate bridges as needed to maintain the functionality and safety of the road network.

Strategy 10.1.8 To resurface pavement as necessary to obtain maximum substructure life.

Strategy 10.1.9 To maintain storm drainage facilities to ensure protection of roadways from flooding, erosion or undermining, and environmental water quality.

Strategy 10.1.10 To install broadband connections to all traffic signal systems.

Strategy 10.1.11 To establish a transportation management center that would enable real-time monitoring of signals and traffic flow throughout the City.

Objective 10.2 To promote alternative modes of transportation, and develop strategies that reduce motorized traffic demand on City streets.

Strategy 10.2.1 To plan for “complete streets” that are designed and operated to enable safe access for all users including bus, bicycle and pedestrian access into all new street and street improvement projects.

Strategy 10.2.2 To complete development of an on-ground bicycle/pedestrian network that is continuous and interconnected.

Strategy 10.2.3 To consider alternative techniques to reduce traffic congestion such as expanded transit service, integrated and optimized traffic signal timings, re-marking lanes, and integrating bicycle/pedestrian enhancements.

Strategy 10.2.4 To prioritize, implement and regularly update the Harrisonburg Bicycle & Pedestrian Plan.

Strategy 10.2.5 To seek conversion of the eastern most line of the Norfolk Southern system in Harrisonburg to a rail-trail as shown on the City Street Improvement Plan.

Strategy 10.2.6 To require private developers to implement bikeway improvements in the City Bicycle & Pedestrian Plan that directly serves their property.

Strategy 10.2.7 To review the following areas and make recommendations for sidewalk and shared use path improvements to at least one-half mile of schools/universities, parks, and public facilities and to fulfill the goals of the Bicycle and Pedestrian Plan.

Strategy 10.2.8 To continue to require all development and redevelopment projects to provide desired sidewalks on both sides of the street.

Strategy 10.2.9 To continue to ensure that all new sidewalks and sidewalk repairs meet American’s with Disability Act (ADA) accessibility standards and for projects in or around sidewalks to maintain ADA accessibility standards.

Strategy 10.2.10 To indicate specific projects for the annual allocation of funds for sidewalk, bicycle, and shared use path improvements in the Capital Improvement Program.

Strategy 10.2.11 To establish wayfinding signage for bicycles.

Strategy 10.2.12 To install bicycle racks at or around all public facilities.

Strategy 10.2.13 To coordinate planning for regional bicycle facilities with the Central Shenandoah Planning District Commission.

Objective 10.4 To promote and seek to increase transit ridership.

Strategy 10.4.1 To continue to work with JMU and EMU to increase transit use by students, faculty and staff.

Strategy 10.4.2 To promote bus, bike or walk to work and school days.

Strategy 10.4.3 To work with the City School Board to promote school buses, walking or bicycling as the primary forms of transportation to school rather than private vehicles, i.e. Walk to School Days and Safe Routes to School.

- Strategy 10.4.4 To continue to revise and improve City bus routes and schedules to serve residential areas and major destinations (universities, major employment sites, shopping centers, downtown).
- Strategy 10.4.5 To work with local employers to provide incentives to employees to travel to work by bus, bicycle or walking.
- Strategy 10.4.6 To seek improvement of transit and paratransit services for the elderly and handicapped.
- Strategy 10.4.7 To work with Rockingham County and other MPO member localities to expand existing and provide new transit routes from County growth areas to the City.
- Strategy 10.4.8 To promote the development of a shuttle service from the City to the Shenandoah Valley Regional Airport at Weyers Cave.
- Strategy 10.4.9 To promote the availability of public transportation connectivity between Harrisonburg and various destinations.
- Strategy 10.4.10 To implement technologies that allow for both increased information to be accessible to transit users and increased efficiency in resource deployment.
- Strategy 10.4.11 To identify and construct the appropriate facilities to accommodate future transit operations with an eye toward establishing transit-only facilities in appropriate corridors.
- Strategy 10.4.12 To continue to grow mass transit operations to keep pace with the increased demand stemming from development in the City, JMU, and other jurisdictions falling within the planning area of the Harrisonburg-Rockingham MPO.
- Strategy 10.4.13 To increase operational hours to make transit access more available.
- Strategy 10.4.14 To improve the amenities at transit stops to create a more comfortable experience for HDPD customers.
- Strategy 10.4.15 To work with all relevant parties to engage in truly multi-modal transportation planning.

Objective 10.5 To assess and seek to mitigate and improve the transportation impacts of both public and private development and redevelopment projects.

Strategy 10.5.1 To continue requiring and reviewing traffic impact studies with all rezoning and special use permit applications proposing development of sufficient size to create a significant traffic impact. Such studies should include:

- Impacts of project vehicular traffic on the road network
- Impacts of the project on pedestrian and bicycle circulation and transit use
- Mitigation measures that would lessen adverse impacts and maintain a desired level of service of "C" or better on nearby roadway links and intersections

Strategy 10.5.2 To perform similar traffic impact studies for public facilities projects.

Strategy 10.5.3 To review Zoning Ordinance parking requirements for multifamily projects to determine their adequacy. Consideration in this review

should be given not only to increasing required parking, but also to measures to reduce parking demand.

Objective 10.6 To reduce automobile trips through innovative means.

Strategy 10.6.1 To promote mixed use neighborhoods as recommended by the Land Use Guide so that residents of these neighborhoods can easily walk, ride a bicycle, or take transit to work, shopping, school, place of worship, and recreation.

Strategy 10.6.2 To expand opportunities for reductions in parking requirements for commercial and residential projects designed to take advantage of transit and for mixed use developments where shared parking is feasible.

Strategy 10.6.3 To promote carpooling through incentive programs, such as, a "guaranteed ride home" program.

Strategy 10.6.4 To encourage community bike share programs.

Objective 10.7 To improve the safety of all modes of travel.

Strategy 10.7.1 To incorporate safety considerations for all travel modes (vehicular, pedestrian, bicycle, public transit) in the design of roadways.

Strategy 10.7.2 To incorporate traffic calming measures in neighborhoods, near schools and universities, and other appropriate areas to discourage speeding and improve pedestrian safety.

Strategy 10.7.3 To relocate the eastern most line of the Norfolk Southern Rail system in Harrisonburg to a location outside the City so as to remove conflicts between rail traffic and vehicular, pedestrian and bicycle traffic.

Legend

- Existing Street Improvement
- - - New Street Improvement
- Interchange Improvement
- Intersection Improvement
- Intersection Removal

Street Improvement Plan COMPREHENSIVE PLAN

City of Harrisonburg, VA
A Shared Vision for the Future

Draft March 2011

Map Data Provided by the City of Harrisonburg
Department of Community Development

0 0.25 0.5 0.75 1.0 1.25 1.5 Miles



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Legend

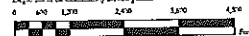
- LOCAL STREET
- COLLECTOR STREET
- ARTERIAL STREET
- INTERSTATE
- Traffic Signal

Street Network COMPREHENSIVE PLAN

City of Harrisonburg, VA
A Shared Vision for the Future

Draft March 2011

Map Data Provided by the City of Harrisonburg
Department of Community Development



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Chapter 12

Community Infrastructure, Services, Safety & Health

Introduction

This chapter deals with the health, safety and welfare issues to which the City must attend. Basic City services and the facilities that support them are often taken for granted by citizens, but are important to take into account when planning the City's future. Additionally, there are quasi-public and private utilities that residents rely upon. While the City may not have a hand in directly regulating these utilities, it is important that utility provision and development are complementary to planning community facilities and land use planning. The utility services discussed in this chapter include:

- *Public Water & Sewer:* The City has made large capital investments to create a safe and reliable water supply and a wastewater treatment system that are cost effective and environmentally sound.
- *Solid Waste Management:* The City operates a Resource Recovery Facility (RRF) where municipal solid waste is incinerated, providing energy to heat and cool portions of James Madison University. The City also has a contract with neighboring Rockingham County for use of its landfill, when needed. These efforts as well as programs to encourage recycling ensure that solid waste is handled responsibly.
- *Harrisonburg Electric Commission (HEC):* HEC is a quasi-governmental political subdivision of the City that operates as a municipal electric provider.
- *Natural Gas Service:* Columbia Gas of Virginia, a NiSource company operates in the City to provide uninterrupted gas service to residential users.
- *Telecommunications:* The City is served by a number of providers including Verizon, Ntelos, Comcast and Shentel. These providers maintain a critical infrastructure that is vital to the quality of life and economic development of the community. These systems are deployed throughout the City so that broadband, wireless, and emergency communications are met. Along with other infrastructure in the community, these facilities are deployed in a manner that maximizes customer service, while minimizing the proliferation of towers and duplication of utility poles. The City and County operate a dedicated broadband network for shared emergency communication response.
- *Stormwater Management:* While the City does not yet maintain a public stormwater utility, the City has made strides in the recent past to assign responsibility for maintenance of private stormwater facilities to appropriate owners in order to ensure proper operation and maintenance. The City maintains many public stormwater conveyance easements, but there are many stormwater easements that are merely reserved and not the City's responsibility.

The City's Capital Improvement Program (CIP) serves as the major financial planning tool for expenditures towards public capital facilities and equipment. It guides development and budgetary priorities for large-scale projects, which exceed funding amounts in the normal operating budget. The CIP helps to ensure that major projects are within fiscal reach for the community and helps to prioritize the most vital capital projects.

Safety and health issues are also addressed here through recommendations for new police and fire facilities and for cooperative programs with local health organizations to inform citizens of health programs and to encourage healthy lifestyles.

Background

Water Supply

The City of Harrisonburg strives to meet its responsibility in providing dependable and reliable water service to its citizens. In doing so, the City owns, operates, and maintains a complete water system from source to customer. Information regarding the City's current water system and plans for meeting future water demand is described in detail in the Plan Background Implementation Supplement and is summarized below.

Water Use: In 2007, at the height of development, the City treated on average a total of 6.75 million gallons per day (MGD) of which 4.61 MGD was sold to in-City customers. The water use data is based on water service to the 7,585 acres of developed land within the City. Water usage will increase as the undeveloped land within the City is built-out. Accordingly, the potential increase in water use was projected based on the build-out of the City for each water user category by using historical usage rates and maximum anticipated usage rates. Based on historical usage rates, build-out of the City could use an additional 3.35 MGD. At the maximum anticipated usage rate, the additional water usage would be 4.46 MGD. Table 12-1 lists the current totals of water usage and shows the projected water usage based on historical and maximum design rates. The projected water capacity needs range from 11.05 to 14.26 MGD for historical rates versus maximum projections, respectively.

Table 12-1: Harrisonburg Total Projected Water Capacity

Category	Zoning	Developed Land			Undeveloped Land				Historical Total	Design Total
		Developed Acreage	2007 Demand	Design Demand (2)	Undeveloped Acreage	Historical Rate	Historical Demand	Design Demand (2)		
		(ac.)	(mgd)	(mgd)	(ac.)	(mgd/ac.)	(mgd)	(mgd)	(mgd)	(mgd)
Res.	R-1, R-P	2,693	1.32	1.76	520	590	0.31	0.41	1.63	2.15
Com.	B-1, B-1C B-2, B-2C	1,161	1.33	1.77	394	1,787	0.70	0.94	2.03	2.71
Ind.	M-1, M-1C,	1,144	0.6	0.80	533	1,849	0.99	1.31	1.59	2.11
Inst.	B-2 (Ov), B-2C (Ov), R-2 (Ov.), R-3 (Ov)	186	0.54	0.72	14	1,901	0.03	0.04	0.57	0.75
City			0.16	0.21				0.00	0.16	0.21
Apartments	R-2, R-2C R-3, R-3C R-4, R-6, R-7	2,099	0.66	0.88	677	1,966	1.33	1.77	1.99	2.65
City Subtotal		7,585	4.61	6.13	2,138		3.35	4.46	7.95	10.59
Rural			0.53	0.84			0.01	0.01	0.64	0.85
Rockingham County			0.17	0.23			0.83	1.10	1.00	1.33
Backwash (6)			0.17	0.17			0.11	0.15	0.28	0.32
Waterloss			1.17	1.17			0	0.00	1.17	1.17
Other Subtotal			2.14	2.40			0.95	1.26	3.09	3.67
Grand Total			6.75	8.54			4.30	5.72	11.05	14.26

Source: Harrisonburg Water System Capacity Evaluation, Public Utilities, 2007.

NOTES:

- (1) Acreage data is 2007
- (2) VDH requires treatment and supply facilities to accommodate the peak day demand; typically accepted and validated in Harrisonburg observations at 133 percent (storage, water treatment plant, backwash, demand peak, etc.)
- (3) Undeveloped City Non-Industrial assumes 75 percent maximum density and VDH planning criteria.
- (4) Undeveloped City Industrial transitions to Commercial; assumes 75 percent maximum density
- (5) Assume County Contract will expand to 1.0 MGD
- (6) Backwash volume = 2.5 percent of water volume treated

Sources of Water: Currently, two sources are available for supplying the City with potable water. These sources consist of surface and/or impoundment withdrawals from the North River and from Rawley Springs. A major project is now underway to upgrade the existing raw water supply line from Rawley Springs and to construct a new raw water supply line from the South Fork of the Shenandoah River to the City's Water Treatment Plant (WTP). These projects, once completed, will significantly enhance the City's water supply. The current available capacity of the City's water supply sources (excluding Silver Lake, a limited resource for only emergency use) is approximately 11.6 MGD. Current available source capacity, without the availability of Switzer Dam during extended drought conditions, is approximately 6.9 MGD. This is below the City's current design demand of 8.54 MGD.

After a new Rawley Springs water supply line is constructed and the Shenandoah River source is brought online, the future long term available capacity of the City's water supply sources—excluding Silver Lake—will be 15.0 MGD through a variety of source options. With justification of demand under permit review, the Shenandoah River could possibly provide for growth in excess of 15.0 MGD.

Treatment: Generally, the City's water supply is good quality; treated water meets or exceeds State regulatory drinking water standards. The current capacity of the City's Water Treatment Plant (WTP) is 15.0 MGD. Although the treatment facility is capable of treating 15.0 MGD, its rating remains at 10.0 MGD until future water supplies become available.

Table 12-2 provides a summary of the City's major water system components and a comparison with current and future system demands.

Table 12-2: Harrisonburg Water System Summary

Source	Current Status (MGD)	Future Status (MGD)
Water Use (demand)	8.54 ⁽¹⁾	14.26 ⁽²⁾
Treatment Capacity ⁽³⁾	10.0	15.0
Source Capacity (normal)	10.2	15.0
Source Capacity (drought)	6.7	14.9

NOTES:

- (1) 2007 design demand.
- (2) Projected average water use. Projected water use using historical usage rates is 11.05 MGD. Projected water use design demand is 14.26 MGD.
- (3) Although the current and future rated capacities of the WTP are 10.00 MGD and 15.00 MGD, respectively, the lower capacities listed above have been added to reflect the consistent average daily output that is expected. The added capacity afforded by the higher figures is used to supply daily peak demands when required and to supplement storage in the system.

As shown above, the City's current water system is capable of meeting or exceeding current system demands. Additionally, once construction of both the Shenandoah River raw water supply line and the replacement of the Rawley Springs raw water supply line are completed, the City's improved water system will be capable of meeting or exceeding future system demands.

Storage and Distribution System: Currently, the City has a total treated water storage capacity of 23.16 million gallons (MG). This storage capacity is provided by nine storage facilities spread across 10 separate pressure zones (six zones with storage and four with no storage). The City owns, operates, and maintains nearly 287 miles of water distribution pipes ranging in size from 1-inch in diameter to 18-inch in diameter. Construction projects involving both expansions and replacements are regularly undertaken to improve water service to City customers. The Department of Public Utilities identifies three areas of concern in the current storage and distribution system:

- The need for an additional storage and booster pump station in the 2nd High Pressure Zone

- The need to upgrade the booster pump station and the storage tank in the Parkview Pressure Zone
- The need to upgrade the transmission pipe in the Dale Enterprise Pressure Zone west of the City.

Most recently, the City has completed the construction of three water storage facilities in the Low zones totaling 18.3 million gallons of storage.

Wastewater Treatment

A major responsibility of the City is to provide a dependable and reliable wastewater collection, conveyance, and treatment system. Wastewater treatment for the City is provided by the Harrisonburg-Rockingham Regional Sewer Authority (HRRSA).

Sewer Use: In 2007, City sewer use averaged a total of 7.22 million gallons per day (MGD). Records from the last recent non-drought or “wet” year, which occurred in 2004, indicate that the City discharged 8.30 MGD of sewage flow to the HRRSA facility. Predictably, non-drought or “wet” years typically result in increased discharges to the treatment plant primarily due to the impacts of inflow and infiltration (I/I). Historically, the City has incurred from 0.40 MGD to 4.10 MGD of I/I into its collection system.

The current sewer use data is based on sewer service to the 7,585 acres of developed land within the City. Additional sewer use will occur in the undeveloped land as build-out of this land continues. Based upon the historical sewer usage rate, the additional usage at build-out is projected to be 7.60 MGD. The maximum projected design demand is 11.70 MGD. Table 12-3 provides a summary of the City’s sewer system demand.

Table 12-3: Harrisonburg Sewer System Demand Summary

Category	2007 Demand (mgd)	Projected Demand (mgd)	Design Demand (mgd)
Non-Industrial (1)	2.94	2.36	5.30
Industrial (2)	1.21	0.98	2.19
Rural	0.04	0.01	0.05
Rockingham County (3)	0.06	0.00	0.06
Subtotal	4.26	3.35	7.60
Infiltration and Inflow (I&I) (4)	2.96	0.00	4.10
Grand Total	7.22	3.35	11.70

Source: Harrisonburg Sewer System Capacity Evaluation, Director of Public Utilities, 2007 data.

Notes:

- (1) Undeveloped City Non-Industrial assumes 75 percent maximum density and VDH planning criteria
- (2) Undeveloped City Industrial transitions to Commercial; assumes 75 percent maximum density
- (3) New County contract does not target potential County market
- (4) Harrisonburg 10 year I&I trend shown below; planning recognizes maximum recorded annual I&I.

Treatment: All sewage from customers within the City who are connected to the public wastewater collection system is conveyed to the HRRSA treatment facility in Mount Crawford, Virginia. This modern facility is a technologically advanced wastewater treatment plant (WWTP) that was recently improved to include biological nutrient removal (BNR) for meeting the stringent requirements of the Chesapeake Bay Preservation Act.

The HRRSA WWTP has a current capacity of 22.0 MGD and treats sewage from the City of Harrisonburg, portions of Rockingham County, and the Towns of Bridgewater, Mount Crawford, and Dayton. Of the current 22.0 MGD capacity, 12.8 MGD are specifically allocated to the City. This capacity exceeds the City's projected design demand of 11.7 MGD.

Collection: Currently, the City owns, operates, and maintains approximately 203 miles of wastewater collection pipes ranging in size from 3-inch in diameter to 36-inch in diameter. Construction projects involving both expansions and replacements are regularly undertaken to improve sanitary sewer service to City customers. To aid in maintaining its wastewater collection system, the City employs an aggressive inflow and infiltration (I/I) abatement program. City forces regularly inspect the sewers, identify problems, and implement corrective actions on a subsection by subsection basis. As a proactive measure for pending regulations involving sanitary sewer Capacity, Management, Operation and Maintenance (CMOM), the City has recently undertaken a capacity evaluation of its primary interceptors. Results from the evaluation will be used to outline future Capital Improvement Plan (CIP) projects for upgrading system capacities, where necessary.

Stormwater Management

System Description: Approximately two-thirds of the storm water runoff from the City discharges into the Blacks Run watershed. The Sunset Heights Branch watershed receives storm water runoff from the western portion of the City and a small portion of the northwest section of the City drains into the Smith Creek watershed. Both the Sunset Heights Branch and Blacks Run watersheds discharge into Cooks Creek in southern Rockingham County. A loosely connected network of stormwater pipes, culverts, inlets, and drainage swales are located throughout the City for providing drainage to low-lying and flood prone areas. According to a 1998 Storm Water Action Plan prepared for the City, the City has a long history of storm water related problems. That plan identified more than 30 different stormwater problem areas scattered throughout the City.

Existing Policies and Programs: The City's Department of Planning and Community Development is responsible for review, approval, and enforcement of all new storm drainage and stormwater management designs associated with new developments. The policy and program tools the City uses in this endeavor consist of specific requirements set forth in the State's Erosion and Sediment (E&S) Control Handbook, the State's Stormwater Management Handbook, the City's Design and Construction Standards Manual (DCSM), and the City's Zoning Ordinances with respect to flood plain issues. The City's Department of Public Works is responsible for the physical aspects of operating and maintaining the City's existing storm water system. Principally, this effort involves the routine inspection, cleaning, and maintenance associated with pipes, culverts, inlets, and selected drainage swales as well as making any structural repairs, modifications, or improvements that may be required. In addition, the Parks &

Recreation Department staffs a Stream Health Coordinator, who partners with Public Works and Planning and Community Development to develop and implement best management practices in maintaining Blacks Run and its tributaries. A significant challenge facing the City is the number of drainage easements that have been reserved throughout the City over the years under private ownership. When easements and facilities are not properly maintained, this creates problems for neighboring or downstream properties and in some cases, public facilities.

The City of Harrisonburg manages a Stormwater Management Program under the Virginia Pollution Discharge Elimination System (VPDES) General Permit for Stormwater Discharges: Small MS4s (Phase II). The Permit requires compliance with six minimum control measures:

1. Public Education and Outreach on Stormwater Impacts
2. Public Involvement/Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Stormwater Runoff Control
5. Post Construction Stormwater Management in New Development and Redevelopment
6. Pollution Prevention/Good Housekeeping for Municipal Operations.

This program is managed by both the Department of Public Works and the Department of Planning and Community Development.

Local Government Facilities

It is vital for the City to maintain its facilities as effectively and efficiently as possible. This requires periodic budgetary reviews for renovations, major capital repairs, expansion and new facilities. Many of these items can be planned well in advance and these are vetted through the CIP process, but maintenance of existing structures requires a rapid and quick response when unexpected needs arise such as a premature equipment failure or structural failure. Many specific community facilities are discussed in Chapter 7 (Education), Chapter 10 (Parks & Recreation), and Chapter 11 (Transportation). While there are numerous priorities indicated in the most recently adopted CIP inclusive of all city departments, the longer-term projects prioritized include:

- Completing construction of a 30" raw water supply line from the Shenandoah River near McGaheysville to the City's Water Treatment Plant on the west side of the City;
- Continuing/completing the multimodal Erickson Avenue-Stone Spring Road transportation facility;
- Expansion of the Rockingham-Harrisonburg Regional Jail Facility; and the
- Expanded Transit and Administration Facility.

Solid Waste Management

The Department of Public Works handles solid waste management for the City. The City's integrated program of collection, recycling, resource recovery, landfilling and education is described in detail in the *City of Harrisonburg Solid Waste Management Plan* from 2007. In 2008, to help defray the cost of solid waste collection, disposal, and recycling, the City adopted a Solid Waste Management fee that applies to all residents and commercial businesses in the City.

Collection: Harrisonburg operates a collection program for residential and for some commercial uses within the city. Trash collection is available to all single family dwelling units. The City does not have equipment to handle dumpsters; therefore service to businesses and apartment complexes is limited; however recycling services are available to all City customers, further discussed in the next section of this chapter. This requires businesses and apartment complexes to develop and submit their own Solid Waste Management Program Plan to the Department of Public Works. The Solid Waste Management Plan estimates a per capita solid waste generation rate of 4.3 pounds per day, which excludes industrial waste and construction debris.

Recycling: The City offers a curbside recycling program, participation in which is voluntary. The City estimates that 75 percent of households have requested and received recycling bins. To encourage participation, the City allows participants to co-mingle recyclables. The City sorts and recycles these household materials as well as materials collected from participating businesses, institutions, and industries. The City is currently meeting the State mandated recycling rate of 25 percent. The City's waste generation rate is 4.3 pounds per capita per day, while the daily per capita disposal rate is 3.2 pounds.

Resource Recovery and Incineration: Harrisonburg operates a 200-ton design capacity resource recovery facility on a 24-hour, year round basis located on Driver Drive on the fringe of the JMU campus. This facility burns mostly commercial and residential solid waste from both the City and County to produce steam. The steam is used in several ways including providing JMU's CISAT campus a source for heating, while in the summer the steam powers chillers that provide cooling. The steam is also available to power generators to produce electricity that may be used by HEC during periods of peak demand to reduce grid overload.

The resource recovery plant was built in 1982 and rebuilt in 2003. The new plant has doubled the design capacity to 200 tons, and meets federal Environmental Protection Agency's Clean Air Act and the Virginia Department of Environmental Quality's (DEQ) Title V regulations.

A major reason for operating the resource recovery plant is to reduce the community impact to the landfill and to furnish alternative energy to JMU and HEC. One hundred tons of waste is converted to approximately 30 tons of ash, significantly reducing the amount of solid waste deposited in the landfill and lengthening the landfill's life span. The City has plans to explore metal removal and dewatering of ash to further reduce impacts to the landfill.

Disposal in the Sanitary Landfill: The last cell of the City's landfill located on Ramblewood Road was closed in the late 1990s. Although a closed facility, the City realizes extensive long-term maintenance costs on an annual basis to remain in compliance with the approved Department of Environmental Quality closure plan. The City conducts a comprehensive set of groundwater monitoring to determine whether the former landfill is a source of contamination from the solid waste. Testing will continue for at least another 20 years. If it is determined that any contamination has occurred, a corrective action plan will be developed and implemented for the closed landfill.

This landfill has three major cells that date back to the 1950s. The Landfill was capped and a portion converted to recreational use as ball fields. The site is currently operated by the

Departments of Public Works and Parks & Recreation. As a result of the landfill closure, the City examined other options available to municipal solid waste disposal. The City was in the process of planning for a major rebuild and expansion of the Resource Recovery Facility (RRF) and an innovative partnership between the City and James Madison University was developed where the RRF would provide steam power to provide heating and cooling for the planned development of the College for Integrated Sciences and Technology (CISAT) on the east side of Interstate 81. Simultaneously, the City entered into contract with Rockingham County for use of its landfill. The agreement stipulates that the City agrees to pay a per capital share of capital improvement costs at the landfill, located on Grassy Creek Road.

The City continues to explore source reduction, reuse, and recycling of all solid waste to reduce contributions to the sanitary landfill and to provide a cleaner, more efficient waste stream to fuel the resource recovery facility. Examples might include a citywide composting program, and a materials recovery facility (MRF) to manage the City's solid waste disposal goals.

Education: The City promotes source reduction, reuse, and recycling of solid waste to the general public and in the schools. Citizens can learn more about the City's recycling center and resource recovery facility by scheduling tours with the Department of Public Works or participating in the Citizen Academy. Brochures and flyers are made available in City buildings and through a number of businesses. The Department of Public Works offers programs in the schools to discourage littering and to promote recycling.

In 2008, the City opened a Household Hazardous Collection facility on Beery Road. The City also coordinates an Adopt-a-Street Program and organizes the annual Blacks Run/Downtown Clean-Up Day. As of January 2001, various citizen groups have adopted approximately 50 miles of City streets annually for regular litter pick-up.

Harrisonburg Electric Commission (HEC)

HEC purchases power for resale to its 20,000 customers from the Dominion Virginia Power Company at four separate metering points throughout the City. The Commission operates under Section 8 of the City Code and accordingly has five, City Council appointed, Commissioners.

The City has had a municipal electric system since 1905. Steam, waterpower and diesel were the original means of electric generation in the City. By the mid-1950s, the City's electric system had become run down and antiquated. Virginia Electric & Power Company (VEPCO) offered to purchase the electric system from the City and purchase a 30 year franchise for just over \$2 million. The sale went to referendum, but did not pass. It was believed that the operation of the system by an independent, nonpolitical commission would provide many advantages including more businesslike management, better long-range planning, and the elimination of excessive draining of revenues from the system. The Harrisonburg City Council created the Harrisonburg Electric Commission in October 1956. It was quickly evident that the electric system needed extensive upgrades and the Commission began work with modernizing the system throughout Harrisonburg, revising electric rates, evaluating inventory, testing meters and developing more effective public relations and personnel programs.

HEC is in the process of planning for continued growth in the City. As a distributor of power, it is of utmost importance that electric needs are met on demand. Future substations are being considered to ensure that adequate capacity is available to facilitate serving future electric loads.

Natural Gas Service

The City is served by Columbia Gas of Virginia, a subsidiary of NiSource Company. NiSource owns and operates approximately 15,000 miles of strategically located natural gas pipelines, integrated with one of the largest underground storage systems in North America. The company headquarters is located in Houston, Texas.

Telecommunications

The City is served by a number of telecommunications providers, including, Verizon, NTelos, Shentel and Comcast. These utilities commonly have pole attachment agreements to utilize HEC's poles for utility deployment.

In January 1996, the City Code was amended and gave HEC the authority to provide fiber optic services within the City. Approximately 17 miles of fiber were installed and the system was operational beginning April 1, 1997. The systems use today is for the City's internal use; providing network connections for Harrisonburg City Schools and local government offices.

Public Safety

Police Department: The following mission statement captures the overall goals and operational objectives of the Harrisonburg Police Department very effectively:

The mission is to "preserve public peace and order, to protect life and property and to enforce the laws of the United States, Virginia and the City of Harrisonburg."

The Police Department performs the following functions:

- Provides police presence and availability throughout the City on a 24-hour basis
- Responds to reports of criminal events or requests for police service in a timely manner
- Investigates criminal events or potential criminal events by identifying, apprehending and arresting suspects, and then providing evidence and testimony in court
- Maintains responsive contact and communications with victims of crime
- Ensures the orderly and safe flow of traffic and investigates motor vehicle crashes
- Encourages community compliance with laws and participation in public safety through crime prevention and education programs, community relations activities, and in setting examples for the public to follow
- Resolves public or domestic disputes to avoid escalation to violence
- Provides specialized police presence in the public parks and recreation areas
- Develops and maintains pro-active programs directed at crime prevention
- Provides personal services and programs directed at crime prevention among the youth
- Provides a formalized complaint process in order that citizens and police can work together effectively
- Provides community services to the public that aid in accomplishing the police mission

The Department now has four police facilities:

- Public Safety building (Harrison Plaza) at 101 North Main Street
- Three unmanned satellite substations:
 - on Mosby Road
 - at the Lucy F. Simms Continuing Education Center
 - at Valley Mall

The City pays 50 percent of the cost of administering the courts and the Regional Jail, which is managed by the Sheriff. The City Police Department has a close working relationship with the Sheriff's office. In addition to sharing the courts and jail, the City allows the County to use our firing range, located on Ramblewood Road, within the City limits.

The Police Department is now headquartered in the ground, 1st, and 2nd floors of the Public Safety building. A small portion of the 4th floor is used for property storage. When the City schools move out of the 4th floor, the Department will need some of this area to expand for increased staffing levels, evidence retention, and other property needs as necessary.

Adequate parking is already a concern at the Public Safety Building. A parking deck, on the west side of the building, would provide more access for employees and the public while enhancing the safety of our fleet of vehicles. The City has allowed test drilling in the area and is pursuing funding for the project.

Fire Department: The Harrisonburg Fire Department's formal mission statement is as follows:

"The mission of the Harrisonburg Fire Department is to serve the public in protecting them from loss of life and damage to property through Fire Prevention and Fire Suppression activities, and to perform such other humanitarian actions as may be necessary to serve our citizens."

The primary functions of this department's mission are:

- To prevent fire through fair and equal Code Enforcement
- To save lives and suppress fire through the most efficient combat tactics
- To be fiscally accountable to the citizens of Harrisonburg
- To provide economical and dependable service to our citizens
- To provide for the professional development and physical fitness of all personnel
- To serve as the City's first line of defense against any type of natural or manmade disaster

Existing Facilities and Services

The Fire Department has four Fire Stations and two other support facilities:

- Station 1 at 80 Maryland Avenue (2 companies)
- Station 2 at 380 Pleasant Valley Road
- Station 3 at 299 Lucy Drive
- Station 4 at 210 East Rock Street

- Administration offices at 101 North Main Street (Harrison Plaza)
- Training Center located at the City shop on Mosby Road

Typical Fire Department response times are 4 to 4½ minutes, although the Park View area has longer response times (5½ to 6½ minutes). A new Fire Station (#5) is planned in the Parkview area. A site under consideration is the former VDOT facility site at Waterman/Chicago Avenues.

Rescue Squad: The Rescue Squad, an all-volunteer organization, is an independent, non-profit corporation that is recognized as an integral part of the official safety program of the City for the purposes of saving lives, administering first aid and teaching safety. The Rescue Squad and the City entered into an arrangement in which the City provided \$1.6 million of funding for the construction of a new Rescue Squad building on a site purchased by the Rescue Squad on Reservoir Street. The squad moved into this new facility in September 2003.

Harrisonburg Rockingham Emergency Communications Center (HRECC): The Harrisonburg-Rockingham Emergency Communications Center is a consolidated center created by an Exercise of Joint Powers by the City of Harrisonburg and County of Rockingham.

“The Mission of the Harrisonburg-Rockingham Emergency Communications Center shall be to efficiently and professionally receive emergency 9-1-1 calls and dispatch emergency services to protect the citizens and visitors of Harrisonburg and Rockingham County, VA.”

The primary functions of the HRECC are:

- Efficiently process emergency calls within one minute of reception;
- Provide high quality communications through state-of-the-art technology;
- Constantly seek out ways to improve the quality of services provided to the community;
- Facilitate the development of highly trained, proficient, dedicated and self-motivated personnel.

Existing Facilities and Services

- The Communications Center and joint Governmental Emergency Operations Center is located on the fifth floor of the City of Harrisonburg’s Public Safety Building, 101 N. Main Street, Harrisonburg, Virginia.
- The HRECC owns and manages eleven radio sites in various locations in the City of Harrisonburg and County of Rockingham that affords two-way radio communications among public safety responders, general government employees and the HRECC.
- The HRECC owns/manages one (of five) Virginia Communications Caches. The Communications Cache holds over five-hundred radios, portable repeaters and deployable trailer-towers that can be dispatched to significant local, state and national incidents requiring additional radio assets and interoperable radio communications.

Community Infrastructure Services, Safety and Health Goals, Objectives and Strategies

Goal 11. To support a vital city with community facilities, infrastructure, and services, which are efficient, cost-effective and conserving of resources.

Objective 11.1 To continue to provide high quality public water service.

Strategy 11.1.1 To construct needed water supply, treatment, storage, and pressure improvements, including:

- Upgrade of raw water supply and treatment capacity to 15.0 MGD
- Additional storage and booster pump station in the 2nd High Pressure Zone
- Storage tank and upgrade of booster pump station in the Parkview Pressure Zone
- Upgrade of transmission pipe in the Dale Enterprise Pressure Zone

Strategy 11.1.2 To develop an asset retirement plan for all assets with purpose to replace assets at the end of their useful life. To also continue the development of operation and maintenance programs that emphasize repair, protection, ISO fire flow delivery, system reliability, water quality, and water loss reduction.

Objective 11.2 To continue to provide dependable, environmentally sound, sanitary sewer service.

Strategy 11.2.1 To continue the City's wastewater system repair and maintenance programs that emphasize repair, preventive action, and reliability.

Strategy 11.2.2 To continue the City's abatement program addressing infiltration and inflow to the wastewater collection system.

Strategy 11.2.3 To continue the City's interceptor improvement program.

Strategy 11.2.4 To continue the support of the Harrisonburg-Rockingham Regional Sewer Authority to meet voluntary and other goals for nutrient reduction to the Chesapeake Bay.

Objective 11.3 To continue to manage the Small MS4 (Phase II) stormwater management program improvements, as required by the Environmental Protection Agency and the Virginia Department of Conservation & Recreation, in order to improve the quality of stormwater runoff.

Strategy 11.3.1 To continue a public education and outreach program regarding the impacts of storm water discharges on streams.

Strategy 11.3.2 To encourage citizen participation and involvement in all aspects of the City's storm water management program.

Strategy 11.3.3 To work with property owners to eliminate illicit discharges once identified.

Strategy 11.3.4 To continue enforcement of the City's erosion and sediment control program.

Strategy 11.3.5 To enforce the requirements for and maintenance of storm water quality improvements in new and redevelopment construction.

Strategy 11.3.6 To maintain and improve programs to prevent pollution and practice good housekeeping in municipal operations.

- Strategy 11.3.7 To manage stormwater following Best Management Practices and innovative non-point source pollution to streams and tributaries.
- Strategy 11.3.8 To develop a regional stormwater management approach through cooperation with James Madison University and Rockingham County.
- Strategy 11.3.9 To adopt stormwater management techniques, such as vegetative swales and urban forestry techniques that are both effective control measures and aesthetically pleasing.
- Strategy 11.3.10 To consider developing and implementing a Stormwater Utility Fee to fund stormwater controls, maintain existing public facilities, and encourage the use of pervious surfacing.
- Strategy 11.3.11 To consider developing a Low Impact Development (LID) design manual, and upon completion, review and amend City ordinances as needed to promote LID techniques.
- Strategy 11.3.12 To consider developing an incentive based program for development projects certified in the LEED program.
- Strategy 11.3.13 To explore the feasibility of the City's eligibility to participate in the Community Rating System administered by FEMA for the potential benefit of reducing flood hazard insurance rates.

Objective 11.4 To reduce sediment loading into Blacks Run and its tributaries

- Strategy 11.4.1 To continue participating in the Soil and Water Conservation Board's TMDL Committee and implement measures as TMDL plans are adopted.
- Strategy 11.4.2 To seek grant funding for projects to implement TMDL goals.

Objective 11.5 To continue an integrated approach for handling and disposal of solid waste.

- Strategy 11.5.1 To promote recycling through:
- Continued and expanded public education campaigns
 - Adoption of regulations requiring businesses to sort their recyclable solid waste and make it available for collection
 -
 - Develop an environmentally preferable purchasing policy for government operations to encourage purchases of items with recycled content, environmentally friendly items when economically feasible.
 - Continue to provide a household hazardous waste day on a frequent basis as well as other special collections.
 - Continue to promote electronic recycling in conjunction with residents and local businesses.
- Strategy 11.5.2 To study the incoming solid waste stream in more detail so as to develop cost-effective waste collection and disposal programs.
- Strategy 11.5.3 To adopt reduction, reuse and recycling reporting legislation.

- Strategy 11.5.4 To further reduce contributions and impacts to sanitary landfills.
- Strategy 11.5.5 To document and maintain archival records of all known solid waste disposal facilities in the City.
- Strategy 11.5.6 To promote food waste diversion and composting in the community.
- Strategy 11.5.7 To promote business donations of usable but non-salable food items to local food pantries.
- Strategy 11.5.8 To investigate and develop options for a yard waste management facility in the City or in partnership with Rockingham County.
- Strategy 11.5.9 To research and implement in broad context a “pay-as-you-throw” program for refuse disposal where fees are based on the actual amount of trash generated.
- Objective 11.6 To involve citizens and businesses in the conservation of resources to assist in maintaining cost-effective public service delivery.
- Strategy 11.6.1 To review the potential for voluntary citizen and business involvement in public service delivery in such areas as recycling, water conservation, stormwater pollution reduction, neighborhood watch, rescue squad participation, emergency preparedness.
- Strategy 11.6.2 To develop programs to recruit and manage citizen and business volunteers in community service.
- Objective 11.7 To monitor the effectiveness and efficiency of service delivery so that changes can be made as needed.
- Strategy 11.7.1 To perform periodic studies of the adequacy, quality, and efficiency of City service delivery, including potential needs for: additional water supply sources, water and wastewater treatment expansions, new or expanded landfill space, expanded recycling options, and resource recovery plant efficiency.
- Goal 12. To ensure the provision of utility services to residents, businesses and customers.
- Objective 12.1 To support the development and maintenance of a highly reliable, efficient, and environmentally sound electrical infrastructure.
- Strategy 12.1.1 To require that new installations of electric service in developments be constructed underground.
- Strategy 12.1.2 To support programs to increase energy efficiency within the City of Harrisonburg.
- Strategy 12.1.3 To provide cost-effective, energy-efficient street lighting appropriate to the use and character of the area.
- Objective 12.2. To support the development and expansion of natural gas service that is reliable, cost effective, properly maintained and responsive to customer needs.

Strategy 12.2.1 To encourage the expansion of gas facilities to all new private developments.

Strategy 12.2.2. To encourage service delivery options to the Harrisonburg market as current infrastructure is insufficient for uninterrupted gas delivery for all users.

Objective 12.1 To plan for the expansion and upgrade of public and private utilities, during maintenance and new infrastructure projects.

Goal 13. To ensure the public safety and encourage the provision of excellent health services for all people.

Objective 13.1 To coordinate and plan for increased emergency preparedness in the face of new national threats.

Strategy 13.1.1 In cooperation with federal, state, other local law enforcement and emergency preparedness agencies, and Rockingham Memorial Hospital, provide for continual maintenance and updating of the City's local Emergency Operations Plan.

Objective 13.2 To assist local health organizations and groups in efforts to achieve the Healthy People 2010 Goals, a program of the Federal Department of Health and Human Services.

Strategy 13.2.1 To cooperate with health providers and groups in hosting events to promote healthy life-styles and provide information about community health services (e.g., health fairs, fitness walks and runs, healthy lifestyles promotional campaigns, etc.)

Objective 13.3 To support the City police and fire departments and the volunteer rescue squad with well located and designed facilities that support their missions.

Strategy 13.3.1 To provide a new police substation in the northwest quadrant of the City.

Strategy 13.3.2 To provide a new fire station in the northwest quadrant of the City.

Strategy 13.3.3 To provide a new police substation in the southeast quadrant of the City.

Existing Water Service COMPREHENSIVE PLAN

City of Harrisonburg
A Shared Vision for the Future
Map Data Provided by the City of Harrisonburg
Department of Community Development

Draft March 2011



Legend

WATER LINES

- UNKNOWN
- 1"
- 1-1/2"
- 2"
- 3"
- 4"
- 6"
- 8"
- 10"
- 12"
- 14"
- 16"
- 20"
- 24"
- 30"



This map was prepared by the City of Harrisonburg, Virginia, Department of Community Development. It is intended for informational purposes only and does not constitute a contract or warranty of any kind. The City of Harrisonburg is not responsible for any errors or omissions on this map.

Existing Sanitary Sewer COMPREHENSIVE PLAN

City of Harrisonburg
A Shared Vision for the Future

Draft March 2011

Map Data Provided by the City of Harrisonburg
Department of Community Development



- Legend**
Sanitary Sewer Lines
Size
- UNKNOWN
 - 2"
 - 3"
 - 4"
 - 6"
 - 8"
 - 10"
 - 12"
 - 14"
 - 16"
 - 18"
 - 20"
 - 21"
 - 24"
 - 27"
 - 28"
 - 30"
 - 36"



Being made available for review is to ensure the accuracy of the data used in the Comprehensive Plan. The City of Harrisonburg is not responsible for the accuracy of the data used in the Comprehensive Plan. The data used in the Comprehensive Plan is for informational purposes only and should not be used for any other purpose. Any use of the data for any other purpose is at the user's risk. The City of Harrisonburg is not responsible for the accuracy of the data used in the Comprehensive Plan.

Chapter 13

Economic Development & Tourism

Introduction

The City of Harrisonburg expresses its concern for the economic health of the community through its economic development and tourism programs. The promotion of business and industrial investment along with jobs retention and creation supports the City's tax base, increases property values, provides work opportunities for the citizens, helps reduce poverty, and moves the City toward economic stability and self-sufficiency. This chapter focuses on Harrisonburg's economic health and the efforts to maintain and enhance it through economic development and tourism promotion.

Background

Economic Conditions

Labor: Harrisonburg has a diverse employment base. The City is primarily supported by non-agricultural employment in the form of manufacturing, trade, tourism, retail trade, and professional services. Consistent with national trends, the City saw substantial growth in Services and Retail Trade employment between 1998 and 2008. The largest growth (7.3 percent) was in the Transportation, Communications, and Utilities sector, which includes establishments in transportation, communication, gas, and electric services. According to the Virginia Employment Commission (VEC) projections for the Northwest Region of Virginia, this industry is projected to be among the fastest growing, along with Retail Trade, Services, and Construction, through 2008.

From 1998 to 2008, the City enjoyed substantial growth in manufacturing employment (6.8 percent), whereas most areas in the country, and particularly on the East Coast, suffered major losses in manufacturing. With the exception of the 2.3 percent decrease in federal government employment, the largest decrease in the City was in agriculture. It is important to know, however, this category is comprised of farming, ranching, forestry, and fishing establishments, and that many of the City's agriculture-related jobs (those in food processing, equipment manufacturing, feed production) are classified as manufacturing employment.

The City's increase of unemployment, up to 6.6 percent in 2009, can largely be attributed to the general economic slowdown, and should decrease over time. Table 13-1 shows Harrisonburg's unemployment rate compared to that of the Rockingham County, the Central Shenandoah Planning District, and Virginia.

Table 13-1: Labor and Unemployment Levels in 1999 and 2009

	Virginia	CSPDC	Rockingham County	Harrisonburg
1999				
Total Labor Force	3,536,409	128,921	37,430	18,628
Number of Unemployed	94,820	2,406	460	232
Number of Workers Employed	3,441,589	126,515	36,970	18,394
Unemployment Rate	2.7%	1.9%	1.2%	1.2%
2009				
Total Labor Force	4,173,123	147,318	42,586	23,157
Number of Unemployed	277,562	9,853	2,463	1,530
Number of Workers Employed	3,896,161	137,465	40,123	21,627
Unemployment Rate	6.7%	6.7%	5.8%	6.6%

Source: Central Shenandoah Planning District Commission, Economics Research Associates.

Income Trends: The City's 2010 average weekly wage (\$653) was well under the state average (\$929) across all industries. However, the City's wage figures were about the same as those for the Central Shenandoah Planning District (\$643) and those in Rockingham County (\$655). In 2010, the highest paid trades in the City are Information (\$992), Finance, Insurance, and Real Estate (\$807), Manufacturing (\$774), Government (\$706), and Construction (\$698). The sectors with the lowest average weekly wages were Transportation and Warehousing (\$585), Agriculture, Forestry, and Fishing (\$556), and Trade (\$523).

Comparing the median Adjusted Gross Income (AGI) in Harrisonburg to that of Virginia and Rockingham County, the 2002-2007 trend shows increases in the City, County, and State medians of 26, 26, and 25 percent, respectively. This trend shows a consistent gap between Harrisonburg and Virginia median AGIs, where the State is 30 percent higher. The gap between Harrisonburg and Rockingham County median AGIs also remained fairly consistent. In 2007, Rockingham County had an AGI of 1.7 percent higher than Harrisonburg's.

Table 13-2: Income Trends, 2002 and 2007

	Virginia	CSPDC	Rockingham County	Harrisonburg
2002				
Average Weekly Wage	\$700	\$522	\$527	\$507
Median Adjusted Gross Income	\$57,924	N/A	\$45,123	\$44,447
2007				
Average Weekly Wage	\$859	\$598	\$605	\$596
Median Adjusted Gross Income	\$72,637	N/A	\$56,790	\$55,823

Source: Central Shenandoah PDC, Economics Research Associates.

Business Investment: Harrisonburg's active manufacturing businesses and their products are listed in Table 13-3. Note that this list does not include as many poultry processing industries as in previous years. Discussions with the Shenandoah Valley Partnership indicated that recent layoffs and business closures in the local poultry industry are due to a number of factors.

Closures of companies like Pilgrim's Pride and Shenandoah Manufacturing are primarily due to buy-outs of small, family-owned businesses by large corporations and are part of a national consolidation trend in the industry. The Virginia poultry industry has also suffered significant setbacks due to an attack of avian flu in 2002. The economic impact of the illness is estimated at \$130 million in cumulative losses to Virginia businesses. Regional, local, and industry leaders are monitoring these trends very closely and are looking for all available technological options to help safeguard the industry.

Table 13-3: Manufacturing Businesses and Products in Harrisonburg, 2009

Business	Products
R.R. Donnelley	Adhesive-Bond Soft Cover Books
Montebello Packaging	Aluminum & Plastic tubing
Cargill, Inc.	Poultry Feeds
Christian Light Publications, Inc.	Book Publishing
Comsonics, Inc.	Cable TV Equipment
Daniel's	Printing & Advertising
Eddie Edwards Signs, Inc.	Sign Production
Excel Steel Works, Inc.	Sheet Metal
Frazier Quarry, Inc.	Crushed Stone
Friendship Industries, Inc.	Packaging & Mailing Services
Georges, Inc.	Poultry Processing
Glass & Metals, LLC	Storefronts
Graham Packaging	Plastic Bottles
IntraPac	Tin Tubes
Reddy Ice	Ice Manufacturing
Rockingham Co-Op Farm Bureau	Prepared Feeds
Southern States Cooperative, Inc.	Prepared Feeds
Superior Concrete, Inc.	Ready-Mix Concrete
Suter's Handcrafted Furniture	Handcrafted Furniture
Tyson Foods, Inc.	Poultry Processing
Valley Building Supplies	Precast Concrete & Building Components
Walker Manufacturing, Company	Exhaust Systems

New Investment: Table 13-4 shows recent "success stories" in Harrisonburg economic development, while Table 13-5 illustrates companies who have invested in the Harrisonburg Downtown Technology Zone.

Table 13-4: Investment Activity, 2006 – 2009, Harrisonburg

	Investment	Employment	New or Expansion
2009			
Atlantic Systems Group	\$0	10	Expansion
Rosetta Stone	\$500,000	100	Expansion
Shenandoah Sustainable Technologies, LLC	\$600,000	72	Expansion
Tyson Foods Inc.	\$3,500,00	130	Expansion
2008			
Montebello Packaging	\$4,000,000	10	New
Tactical & Survival Specialties, Inc	\$ 100,000	21	Expansion
2007			
Ariake USA Inc	\$18,000,000	25	Expansion
Blue Ridge Data Center	\$ 115,000,000	25	New
Tyson Foods, Inc	\$2,500,000	110	Expansion
2006			
Graham Packing Company, L.P.	\$2,400,000	50	Expansion
Kawneer Company, Inc.	N/A	15	Expansion
SI International, Inc	N/A	150	Expansion
Tenneco Inc, Walker Mfg.	\$3,400,000	0	Expansion

Source: Harrisonburg Economic Development.

Table 13-5: Harrisonburg Downtown Technology Zone Companies

Companies
Rosetta Stone
Gravity Group
Immerge Technologies
Digico
eValley.com
Digital Phenom
Eren Corporation
High Speed Link
The Resource Network
Blue Key Web Design
Vision Technology Group
MLC Advertising
Venture Interactive
Estland Design

Real Estate and Utilities: Since the last Comprehensive Plan update, the City's shopping centers have experienced expansions, closures, and revolving vacancies. As these areas remain in flux, the City will continue to observe and promote the usage of vacant shopping center space and other available commercial areas. At the current time, the City is monitoring the opportunities for the Rockingham Square and Waterman Square shopping centers along with the available space that was occupied by Books-A-Million.

The limited availability of M-1, General Industrial District land, particularly of parcels larger than 30 acres, may be an obstacle to business recruitment efforts. Some existing business owners

believe the natural gas infrastructure needs major upgrades. Columbia Gas of Virginia, a subsidiary of NiSource, serves the area. Harrisonburg is on the end of their service line and curtailments are a frequent occurrence when temperatures drop below freezing.

Additionally, the City hopes to increase business opportunities, partnerships, and other cooperation for expanded broadband and wireless services.

Tourism

Overview: Harrisonburg Tourism and Visitor Services (HTVS) is the Destination Marketing Organization (DMO) for the City. The HTVS receives funding from the City's General Fund. It does not receive a direct allocation from the City's meals and lodging tax.

The mission of HTVS is to position Harrisonburg as a premier travel destination by promoting and developing creative tourism initiatives to stimulate economic growth in the City. HTVS works in partnership with local businesses, media, travel writers, group tour operators, meeting and event planners, film scouts, and regional and state tourism partners to increase tourism in our region. HTVS provides the most up to date information to our visitors upon arrival, and works to improve the quality of living for our local community. HTVS operates the Hardesty-Higgins Visitor Center, including the Valley Turnpike Museum, Rocktown Gift Shoppe, and the Civil War Orientation Center, located within the beautifully restored structure on Main Street.

Specific goals include:

- To build a distinct presence in the tourism marketplace by establishing a recognizable and easily marketable "brand" for Harrisonburg.
- To continually develop new tourism products to promote the City.
- To increase awareness of tourism marketing opportunities to our local businesses.
- To enhance the visitors experience through continued research and promotion of our rich history and heritage.
- To market to the motor coach industry by developing sports, heritage, culinary, and educational group travel opportunities.

Visitor Center: HTVS operates the Hardesty-Higgins House Visitor Center (HHHVC), a state certified regional visitor center. HHHVC provides space for rack cards, brochures, and various other print publications. Businesses can display posters and event and special promotion flyers. Businesses within the City are encouraged to display retail merchandise, antiques, art, and provide live demonstrations to promote retail business in the City. HHHVC operates Monday-Sunday 9am-5pm; closed only for major Holidays. Visitors are greeted by experienced Travel Staff. Travel Counselors are educated monthly on new opportunities in our region and attend an annual Virginia Tourism Conference for state updates and customer service training.

Welcome Packages: HTVS provides welcome packages to groups, event planners, and residents planning weddings, family reunions, and special events. Packages are assembled depending on the visitor's interests. Packages include Sports and Recreation, Arts and Entertainment, History and Heritage, Family Fun, Shopping/Dining/Lodging, or all of the above.

Marketing and Branding: HTVS is working to cooperatively market our attractions, buying down advertising with partners both locally and regionally in the Shenandoah Valley. HTVS

follows national tourism trends, creating attractive packages and tourism products for the City. HTVS is working to increase awareness of the City by branding in close association with Harrisonburg Economic Development and Harrisonburg Downtown Renaissance slogans and campaigns. HTVS is seeking a strong campaign for cable and satellite broadcasting, targeting the Northern Virginia and DC markets.

Travel Media and Film Scouts: HTVS is working with travel writers, and regional and national publications offering narrative to promote Harrisonburg as a premier travel destination. HTVS is working to promote the City in Virginia Living Magazine, SEEN Magazine, Preservation, Southern Living, Frommer's and Foder's Travel Guides, Newsweek, and multiple other print publications. Targeted broadcast stations include Fox News, PBS, and WVPT. Travel Writer requests for stories are submitted monthly. Exposure has continued to increase for the City since the inception of HTVS in July of 2005.

Group Tour Opportunities: HTVS has produced a 4 minute media piece to highlight heritage travel in the region and historic tours in Harrisonburg. HTVS currently offers five distinct tours. HTVS is working to increase awareness within the motor coach industry through annual profile updates, our new media piece, and membership in the American Bus Association. Regional partnerships have been formed to attract tours to our region by providing skilled step-on guide service for motor coach tours.

Meetings and Conferences: Harrisonburg currently has capacity for hosting events for up to 250 attendees. The City is also host to multiple small meetings and statewide conferences. Larger facilities are located on the campuses of James Madison University (JMU) and Eastern Mennonite University (EMU). HTVS works cooperatively with these establishments to fill leads interested in bringing meeting and conference business to the City. HTVS will continue to pursue the concept of a downtown or city conference facility, working cooperatively with the City and partner agencies.

Annual Visitor Guide: HTVS produces an annual visitor guide, which is distributed nationwide. In 2009, HTVS printed 75,000 copies to meet a growing demand.

Economic Development

The stated mission of the City's Department of Economic Development is "to increase the number of higher-paying job opportunities available in Harrisonburg by attracting new businesses to this community and assisting existing firms to expand locally."

To that end, the department has set the following goals and underlying strategic objectives.

- Goal: Increase technology-related job opportunities in the City
- Objective: Attract expansion investments from Washington, DC metro area information technology and/or telecommunication firms
- Goal: Attract jobs that pay above-average wages
- Objective: Assist in the attraction and creation of jobs in Harrisonburg that pay greater than \$16.33 per hour (the City's average weekly wage in 2010)

- Goal: Attract capital-intensive operations to the City
- Objective: Increase the machinery and tools tax base located within City limits
- Goal: Improve the overall business climate within the City
- Objective: Strive to make Harrisonburg the best place in Virginia in which to operate a business
- Goal: Pursue regional cooperation in economic development efforts
- Objective: Work in cooperation with other Shenandoah Valley jurisdictions to market the Valley as a strong business region. By pooling marketing resources, the goal is to increase the number of business prospects in the pipeline.

Financing options are available to existing and prospective Harrisonburg firms through:

- Harrisonburg Industrial Development Authority (IDA) – a 7-member board authorized to issue bonds for up to 100 percent of project costs for manufacturing operations.
- Harrisonburg Redevelopment and Housing Authority (HRHA) – a 5-member board authorized to finance projects in the central business district of downtown Harrisonburg.
- Virginia Economic Development Loan Fund (EDLF) – provides fixed-asset financing to new and expanding manufacturing and other companies that a) create new jobs or save at-risk jobs and b) sell 50 percent or more of their products outside of Virginia. Funds can be used for acquisition of land and buildings, construction or improvements to facilities, and the purchase of machinery and equipment.

Harrisonburg Technology Park: The City developed the Harrisonburg Technology Park to attract and encourage the development of technology-related businesses. The park is one of only 13 Virginia Technology Zones, a designation that allows the City to provide incentives to targeted businesses for up to 10 years. The Harrisonburg incentive package includes a three-year exemption from business, professional, and occupational license taxes and fees, exemption from water and sewer availability and connection fees, and below-market land prices.

Shenandoah Valley Partnership: The Shenandoah Valley Partnership (SVP) is a regional partnership that addresses economic development in the central Shenandoah Valley region. The Partnership includes the Cities of Buena Vista, Harrisonburg, Lexington, and Waynesboro, and the Counties of Augusta, Highland, Page, Rockbridge, Rockingham, and Shenandoah. JMU plays a particularly active role in the Partnership and provides on-campus office space.

The Partnership's Board of Directors is made up of approximately 20 members, split evenly among public and private sector interests. The Executive Committee of the Board provides leadership in regional activities and offers direction to the Shenandoah Valley Partnership's staff.

Shenandoah Valley Technology Council: The Shenandoah Valley Technology Council (SVTC) was established in 1997 through a grant written by the office of Research and Program Innovation at JMU. The SVTC provides informational programs and networking opportunities to its members, which include business, government, and education leaders. Standing committees include Planning and Operations, Regional Technology Workforce Development, Marketing, and Entrepreneurship.

Downtown Renaissance Initiative: The Harrisonburg Downtown Renaissance was organized by City Council in April 2002. This economic development effort is described in Chapter 14, Revitalization.

Economic Development & Tourism Goal, Objectives and Strategies

Goal 14. To retain and enhance the City's role as the economic and tourism hub of the region, offering a variety of jobs in those sectors that enhance the City's ability to expand its economic base.

Objective 14.1 To increase the number of higher-paying jobs available in Harrisonburg by attracting new businesses and assisting existing firms to expand locally.

Strategy 14.1.1 To monitor wage levels locally, regionally and in the state so as to determine wage goals.

Strategy 14.1.2 To continue to recruit new businesses and promote the expansion of existing business that offer full-time permanent jobs paying above the City's current average weekly wage or above a higher wage goal as wage studies suggest.

Strategy 14.1.3 To continue to assist businesses in taking advantage of financing options available from the Harrisonburg Industrial Development Authority, the Harrisonburg Redevelopment and Housing Authority, the Virginia Economic Development Loan Fund, and the Virginia Small Business Financing Authority Loan Guaranty Program.

Strategy 14.1.4 To continue the technology business incentive package offered in the Harrisonburg Technology Park.

Strategy 14.1.5 To make businesses aware through focused outreach of the business planning assistance available from the JMU Small Business Development Center and the Harrisonburg chapter of Service Corps of Retired Executives (SCORE).

Strategy 14.1.6 To increase living wage job opportunities for all segments of the workforce.

Strategy 14.1.7 To actively market older shopping centers with high vacancies including consideration of conversion to other uses.

Objective 14.2 To increase business linkages with James Madison University, Eastern Mennonite University, Blue Ridge Community College, and National College.

- Strategy 14.2.1 To continue and expand cooperative efforts between the City and the universities to promote new businesses that capitalize on university resources and the graduate employment pool. For example, the City and universities could hold annual summits to explore ways to expand business and job opportunities. Such summits should involve university business program faculty and staff, current students, and graduates.
- Strategy 14.2.2 To involve JMU in efforts to revitalize downtown. An example of such involvement might include the expansion of cultural offerings through the planned Cultural Arts campus.
- Objective 14.3 To work with the Shenandoah Valley Partnership and the Shenandoah Valley Technology Council on regional economic development initiatives.
- Strategy 14.3.1 To increase participation and investment in the Shenandoah Valley Partnership from both the public and private sectors including new businesses and industries.
- Strategy 14.3.2 To participate actively in the Shenandoah Valley Technology Council so as to keep abreast of technology trends and support the infrastructure necessary to attract high-tech businesses.
- Objective 14.4 To build a distinct presence in the tourism marketplace to increase tourism in Harrisonburg.
- Strategy 14.4.1 To establish a recognizable and easily marketable “brand” for Harrisonburg and to market that brand through print, media, and electronic marketing, in travel magazine advertising, brochures, rack cards, small meeting, conference, and group tour promotional materials.
- Strategy 14.4.2 To provide interpretation of the Arts, Culture, and History of Harrisonburg through orientation at the Hardesty-Higgins Visitors Center.
- Strategy 14.4.3 To partner with local attractions, retail businesses, restaurants, museums, entertainment venues and lodging partners to develop products to increase motor coach tourism.
- Strategy 14.4.4 To encourage the development of expanded conference and meeting facilities in the City.
- Strategy 14.4.5 To support the Harrisonburg Tourism and Visitor Services in implementing these strategies.

Chapter 14 Revitalization

Introduction

Cities, and areas within cities, often go through periods of community and economic health as well as periods of stress. Virtually all cities have areas within them that at some time are in need of rehabilitation and revitalization. The City of Harrisonburg has identified a number of areas of the City where revitalization strategies should be applied. The goal is to help these areas return to their original prosperity, attractiveness, and function so that they again become assets to the community and meet the needs of businesses and/or residents.

Background

Downtown

Downtown Harrisonburg was once the economic center of the City and the region, but has been overshadowed by new commercial and business areas. The City has made steps toward revitalizing its downtown, recognizing that a vital city center attracts business, tourists, and improves the overall quality of life for residents. To that end, Harrisonburg offers tax incentives to downtown property owners, has created special districts and zones, and has provided support for Harrisonburg Downtown Renaissance, a non-profit organization seeking revitalization of downtown.

Central Business District: The City has established tax incentives to encourage the renovation and/or rehabilitation of older structures downtown. The incentive is offered to owners of B-1, Central Business District commercial and residential real estate that is at least 25 years old. It provides partial exemption of real estate taxes, not to exceed the amount of the increase in assessed value due to the renovation, for up to five years.

Arts and Cultural District: The ordinance establishing the Arts and Cultural District was adopted in 2001. The district is comprised of the B-1, Central Business District, parts of B-2, General Business District adjacent to B-1, and James Madison University's (JMU) main campus. The City's stated goal in creating the district is "to improve the economic conditions of the central portion of the City, which could, in turn, benefit the welfare of the citizens of Harrisonburg." The district offers qualified arts organizations exemption from business, professional, and occupational license taxes and fees for three years. In addition, organizations are exempt from admission taxes and can qualify for the Central Business District tax incentive described above.

Harrisonburg Downtown Technology Zone: The zone was created to encourage technology businesses to locate in this limited area of downtown. Incentives include water and sewer connection fee exemption and 3 year business, professional, and occupational license tax exemption for qualified high-technology businesses.

Economic Revitalization Zone: This zone is defined as all parcels of real estate located within the City's B-1, Central Business District and the City's Virginia Main Street district. Tax incentives include partial exemption for 5-10 years from real estate taxation for new commercial and residential mixed-use construction exceeding \$1 million and containing at least 40 percent retail on the ground floor.

Harrisonburg Downtown Renaissance: This organization grew out of an effort initiated by City Council in April 2002 to evaluate a proposal to create a pedestrian mall in downtown Harrisonburg. Its mission has since broadened in scope, and is to “work in partnership with City government and the community to develop a comprehensive vision and master plan to revitalize downtown Harrisonburg into a prosperous and vibrant city center.” Its board of directors and advisory board include representatives of City government, non-profits, and the universities, as well as individual property and business owners and professionals.

Harrisonburg Downtown Renaissance’s board of directors has laid out the following organizational objectives:

- **Economic:** To strengthen the downtown district’s existing economic base, seek ways to introduce new types of commerce suitable for a downtown venue, and convert underutilized space into productive uses.
- **Design:** To promote the enhanced physical appearance of the district by capitalizing on its assets, rehabilitating historic buildings, encouraging supportive new construction and beautifying the streetscape.
- **Promotion:** To market the downtown district’s unique qualities to potential customers, investors, new businesses, local citizens, and visitors through effective strategies and special events.
- **Organization:** To build cooperation and consensus between all stakeholders in an effort to meet our mission and objectives, to strengthen our Main Street program, and to improve the quality of life for the people who live, work, and visit downtown Harrisonburg.

Harrisonburg applied for and became a designated community with the Virginia Main Street program in August 2004 and will use the resources of that program to further the goals of downtown revitalization and the goals, objectives, and strategies of the comprehensive vision and master plan called for in Harrisonburg Downtown Renaissance’s mission statement and organizational objectives. Included in the latter is the development of a document from August 2008 by Eugene Stoltzfus Architects titled: Urban Values & Vision for Downtown Harrisonburg, which is incorporated into the Comprehensive Plan by reference. This plan addresses a wide range of issues, among them the following:

- Local, regional, national and global perspectives
- Urban design principles and urban trees
- Opportunities for private building renovation and new construction
- Creative public projects and enhancements
- Guiding concepts and values

Edom Road Revitalization Area

The City has identified several blocks around Edom Road, as shown on the Plan Framework Map, as an area in need of revitalization. Located next to downtown, this area currently exhibits low quality and deteriorating building stock and conflicting land uses. The goal is to encourage reinvestment and to seek coordinated redevelopment of the area transforming it into an attractive and vital City asset. The revitalization plan for this area should consider such issues as the following:

- Quality of building stock
- Number of vacancies
- Presence of historic and environmental resources
- Economic viability of businesses
- Parcels where redevelopment is recommended
- Appropriate land uses and zoning
- Redevelopment and building rehabilitation incentives
- Needed public investments (roads, sidewalks, streetscape, infrastructure)

Neighborhood Conservation Areas

The Comprehensive Plan Advisory Committee has identified a number of neighborhoods around the edges of downtown as experiencing stress. These neighborhoods are highlighted on the Plan Framework Map. Some are suffering from poorly maintained, deteriorating, or vacant homes and spot conversions of single family homes to apartments, often for students. Other areas contain older deteriorating apartment buildings. Some are affected by encroaching commercial development or inappropriate conversion of houses to non-residential uses. Impacts of traffic on highly traveled roadways may also be creating neighborhood stress. This plan recommends that for each of these areas a community-based neighborhood plan be developed to address these and other issues raised by the community. Such plans might include:

- Programs to encourage the rehabilitation and renovation of older houses;
- Programs to facilitate home ownership and improve the quality of rental housing;
- Revisions to the Zoning Ordinance to reduce the number of variances and conditional use permits needed to build and renovate older homes on small lots;
- Strategies to reduce land use conflicts, including conflicts between residential areas and adjacent commercial or industrial areas and conflicts created by the expansion of public and institutional uses within neighborhoods;
- Programs to reduce pressures to convert single family houses and lots to other uses;
- Traffic impact analyses addressing commuter traffic on major through roads and industrial truck traffic;
- Recommended infrastructure improvements, including street and sidewalk repairs, traffic calming measures, new sidewalks and trails, upgraded water and sewer lines;
- Other public investments, such as street tree planting, pocket parks, and community centers;
- Resolution of safety and security issues;
- Programs to encourage the involvement of neighborhood residents in the improvement and maintenance of their neighborhoods (building leadership capacity, encouraging civic involvement); and
- Standards for public landscaping, streets, and utilities in the historic districts to enhance their distinctive design.

Revitalization Goal, Objectives and Strategies

Goal 15. To enhance and revitalize existing residential and commercial areas.

Objective 15.1 To make downtown revitalization a major, high priority public/private initiative, the cornerstone of the City's economic development, tourism, historic preservation, and civic pride enhancement efforts.

Strategy 15.1.1 To support the initiatives of Harrisonburg Downtown Renaissance in such areas as:

- Creating a permanent, well funded downtown revitalization organization
- Developing design guidelines and design enhancement projects
- Marketing and promoting downtown businesses, restaurants and retailers
- Promoting the Arts and Cultural District and encouraging the location of museums and other cultural facilities downtown
- Strengthening downtown's economic base as a regional destination
- Making downtown the focal point for community and regional events.
- Encouraging flexibility and creativity in the use of public property and resources in the downtown (i.e. restaurant/cafe use of public sidewalk, and other proposals for public properties)

Strategy 15.1.2 To develop with Harrisonburg Downtown Renaissance a downtown revitalization plan to guide the rehabilitation and development of the area. This plan should address the following:

- Recommended changes in land use
- The appropriate density and intensity of downtown development and redevelopment
- Incentives to rehabilitate existing quality buildings
- Design guidelines addressing such issues as building height, setback, orientation, façade treatment, commercial signage, etc.
- Parking needs and standards for the location and design of parking lots and structures
- Needed transportation improvements, including roads, sidewalks, bicycle lanes and trails, transit stops, etc.
- Streetscape improvements, including signage, lighting, street trees, landscaping, paving materials, and street furniture.
- Parks and public spaces, including bathrooms and a permanent stage for the park adjoining the Turner Pavilion.

Strategy 15.1.3 To promote and create incentives for development of new housing downtown in accordance with the downtown revitalization plan.

Strategy 15.1.4 To conduct a downtown parking survey and/or study directed toward identifying current and future needs and strategies which address those needed in light of the critical role that parking resources play in

- promoting and accommodating existing and additional retail and housing growth.
- Strategy 15.1.5 To prepare a redevelopment and revitalization plan for the Edom Road Revitalization Area, which is located adjacent to downtown.
- Objective 15.2 To examine the extent to which changes in the retail sector are related to retail growth versus retail relocation, to seek to minimize long-term retail vacancies, and to initiate programs to redevelop and revitalize abandoned older retail areas.
- Strategy 15.2.1 To understand and monitor trends and conditions in the local and regional retail market.
- Strategy 15.2.2 To consider the impacts of new retail commercial rezonings on the current retail supply and demand.
- Strategy 15.2.3 To actively market older shopping centers with high vacancies including consideration of conversion to other uses.
- Objective 15.3 To identify neighborhoods under stress and seek to stabilize, improve the maintenance of, and revitalize these neighborhoods.
- Strategy 15.3.1 To prepare community-based neighborhood plans for neighborhood conservation areas identified on the Plan Framework Map. Such plans might include:
- Programs to encourage quality rehabilitation and renovation of older houses;
 - Programs to facilitate home ownership and improve the quality of rental housing;
 - Revisions to the Zoning Ordinance to reduce the number of variances and special use permits needed to build and renovate older homes on small lots;
 - Strategies to reduce land use conflicts, including conflicts between residential areas and adjacent commercial or industrial areas and conflicts created by the expansion of public and institutional uses within neighborhoods;
 - Tools to assure compliance with zoning and property maintenance codes, particularly for residential rental units;
 - Programs to reduce pressures to convert single family houses and lots to inappropriate other uses;
 - Traffic impact analyses addressing commuter traffic on major through roads and industrial truck traffic;
 - Recommended infrastructure improvements, including street and sidewalk repairs, traffic calming measures, new sidewalks and trails, upgraded water and sewer lines;
 - Other public investments, such as street tree planting, pocket parks, and community centers;
 - Resolution of safety and security issues;

- Programs to encourage the involvement of neighborhood residents in the improvement and maintenance of their neighborhoods (building leadership capacity, encouraging civic involvement); and
- Standards for public landscape, streets, and utilities in the historic districts to enhance their distinctive design.

Strategy 15.3.2

To utilize the planning process described under Objective 3.1

Strategy 15.3.3

To implement neighborhood conservation area plans.

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Chapter 15 Community Engagement & Collaboration

Introduction

The Comprehensive Plan sets out an agenda for City improvement and progress toward realizing its vision for the future. Many citizens tend to think that the City government alone is responsible for implementing the Comprehensive Plan. However, implementation success will depend greatly on the City government partnering with other governments, institutions, non-profits, civic groups, businesses and residents. Many issues can only be resolved comprehensively and successfully on a regional basis, so collaboration with Rockingham County is essential. Key internal institutions with which the City hopes to collaborate are James Madison University, Eastern Mennonite University and Rockingham Memorial Hospital. As the following Goal 16 shows, there are many areas where these institutions can collaborate with the City besides just the areas of education and health.

The vision statement presents a future City that is a great place to live, to raise a family, to work and to prosper. But note that the vision statement also contains another key idea – a City where citizens are inspired to work together. Goal 17 supports efforts to engender civic pride and to encourage all citizens to participate in planning for the City and working toward the vision. Generally, this goal is working toward establishing community engagement where the entire community is involved in local efforts and activities.

Community Engagement & Collaboration Goals, Objectives and Strategies

Goal 16. To coordinate and collaborate with Rockingham County, Rockingham Memorial Hospital, James Madison University, Eastern Mennonite University, faith based organizations, and others to meet these goals.

Objective 16.1 To explore ways that the City of Harrisonburg and Rockingham County might increase collaboration in the provision of public facilities and services and in other public endeavors.

Strategy 16.1.1 To establish a formal process under which the City and County can discuss and implement coordinated or shared programs in such areas as affordable housing, land use planning, growth and development, transportation, emergency communications system, parks & recreation, greenways, tourism promotion, stormwater management, environmental protection.

Objective 16.2 To coordinate and collaborate with James Madison University, Eastern Mennonite University, and Blue Ridge Community College in areas of mutual concern.

Strategy 16.2.1 As described in other objectives and strategies, to establish mechanisms and procedures for coordinating and collaborating with these institutions of higher learning on such issues as campus master planning, provision of student housing, transportation and parking,

workforce development, technology business development, lifelong learning opportunities, and arts and culture.

Objective 16.3 To coordinate and collaborate with Rockingham Memorial Hospital, the Central Shenandoah Health District and the Healthy CommUnity Council in responding to community health needs and concerns.

Strategy 16.3.1 To support and coordinate with the health community on such issues as wellness programs, health issue awareness, and doctor recruitment.

Goal 17. To engage all citizens to work collaboratively in planning, developing, and promoting the City as a great place.

Objective 17.1 To encourage citizen involvement in City affairs through a multi-venue campaign to promote civic pride and participation.

Strategy 17.1.1 To continue developing and implementing civic pride events, such as, city clean-up days, spring flower planting, volunteer recruitment fair, walk or bike to work/school day.

Objective 17.2 To establish procedures for including citizens in planning and plan implementation.

Strategy 17.2.1 To develop and implement a planning approach and process that assures involvement of residents and landowners in preparing the plans for their neighborhoods.

Strategy 17.2.2 To include citizens and the business community in commercial area revitalization planning efforts.

Strategy 17.2.3 To establish a Comprehensive Plan Advisory Committee for each regular comprehensive plan review and update effort.

Objective 17.3 To reach out to all segments of the population to ensure their participation in planning, developing, and promoting the City as a great place.

Strategy 17.3.1 To establish volunteer liaisons between the City and the immigrant communities.

Strategy 17.3.2 To provide signs and brochures in Spanish as much as feasible.

Strategy 17.3.3 To hire multi-lingual staff to the extent feasible.

Strategy 17.3.4 To increase the diversity of the City staff.

Strategy 17.3.5 To provide diversity training for City employees so that they are better equipped to serve all segments of the community.

Strategy 17.3.6 To provide Spanish translators at comprehensive plan public input meetings and to advertise such meetings in the local Spanish language newspaper.

Strategy 17.3.7 To continue to celebrate the City's ethnic communities through events and festivals.

Strategy 17.3.8 To encourage immigrants to learn English.

Chapter 16 Implementation

Introduction

This plan recommends an ambitious array of goals, objectives, and strategies for achieving its vision for the future. The Planning Commission and City Council recognize these recommendations cannot be implemented all at once. There are limitations of time and money that must be weighed against the desire to accomplish so much. Therefore, this chapter of the plan sets priorities for the strategies that should be undertaken first – in the first five years after adoption of the plan.

This chapter also addresses future amendment of this plan. Circumstances change and opportunities arise; therefore, to keep this plan vital and useful, it must be reviewed regularly, and citizens must be involved in those reviews

Priority Implementation Strategies for the First Five Years: The 2011 – 2016 Action Plan

The following implementation strategies have been identified as priorities that should be implemented starting in 2011 and completed by the end of 2016:

- Strategy 1.6.1 To remove the potential for development or redevelopment of uses incompatible with their surroundings by initiating appropriate rezonings or text amendments as indicated by the Land Use Guide.
- Strategy 3.2.2 To develop a set of policies to limit rezonings and special use permits for conversions of single family homes into duplexes and apartments. Such policies should contain criteria regarding the locations and neighborhood and building conditions that warrant permission of conversion as well as neighborhood plan recommendations regarding conversions to rental housing.
- Strategy 3.2.4 To consider implementing a rental housing registration and/or inspection program to ensure compliance with the Building Code and promote safe, decent and sanitary housing. Sufficient funding will need to be secured to establish this new program.
- Strategy 3.3.2 To include in the City's land use codes and manuals design provisions and performance standards to improve the design quality of all residential development.
- Strategy 3.4.2 To review and amend the Zoning Ordinance so as to increase opportunities for single family residential development affordable to households in a range of incomes.
- Strategy 8.4.5 To consider adding street tree planting and other landscape requirements for new development and redevelopment in the City's land use codes.
- Strategy 10.1.4 To expand the Design & Construction Standards Manual to include design standards for streets that reduce traffic congestion within the transportation system while accommodating all transportation modes. Standards should be

included both for streets constructed by the City and those by the private sector specifying appropriate:

- interconnectivity of the street system
- street widths adequate to handle projected traffic volumes based on traffic impact analyses while avoiding excessive pavement widths
- pull-off areas for buses on collector and arterial streets
- bicycle facilities
- sidewalk widths and location within the street right-of-way.

Strategy 10.2.1 To plan for “complete streets” that are designed and operated to enable safe access for all users including bus, bicycle and pedestrian access into all new street and street improvement projects.

Strategy 10.2.3 To consider alternative techniques to reduce traffic congestion such as expanded transit service, integrated and optimized traffic signal timings, re-marking lanes, and integrating bicycle/pedestrian enhancements.

Strategy 10.6.1 To promote mixed use neighborhoods as recommended by the Land Use Guide so that residents of these neighborhoods can easily walk, ride a bicycle, or take transit to work, shopping, school, place of worship, and recreation.

Strategy 14.1.2 To continue to recruit new businesses and promote the expansion of existing business that offer full-time permanent jobs paying above the City’s current average weekly wage or above a higher wage goal as wage studies suggest.

Strategy 15.1.1 To support the initiatives of Harrisonburg Downtown Renaissance.

Strategy 15.3.1 To prepare community-based neighborhood plans for neighborhood conservation areas identified on the Plan Framework Map.

Revisions to the Priority List of Implementation Strategies in the 2011-2016 Action Plan

City Council reserves the right to change the priority list as strategies are completed, as circumstances change, and as new opportunities arise. It is difficult to predict the future. As the City pursues a strategy, it may find that upon detailed study, the strategy recommended is not advisable. An alternative strategy to meet the objective and goal may be substituted. In addition, a strategy that seemed important may be reduced in importance because of a change in circumstance. Another strategy may be moved up on the priority list because a new funding source becomes available, an organization or group offers to carry it out, or a strong need arises. The list of priority strategies provided above is flexible and may be changed during the 2011-2016 timeframe.

It should also be noted that the inclusion of a strategy in this plan does not guarantee implementation. Council also reserves the right to evaluate the need and cost of implementing a strategy in light of current conditions and priorities as implementation proposals arise.

Implementation of Strategies not in the 2011-2016 Action Plan

The City will implement immediately some objectives and strategies that are not listed in the 2011-2016 Action Plan. These involve on-going activities, mandated activities, or activities already planned in the Capital Improvements Program.

Amendments to the Comprehensive Plan

This plan should be reviewed again in the 2016-2017 timeframe so that it does not become out of date. Virginia law also mandates such a review. The review may be a complete rewrite of the plan, as was done in 2003, or it may involve just a review and revisions of this plan document. A process to involve the public must be implemented in the 2016-2017 review.

Amendments to this plan may also be needed within the 2016-2017 timeframe. If the Planning Commission and City Council receive a request to approve actions that contradict the Land Use Guide and Master Transportation Plan, amendments to the plan should be considered first. Such amendments could be considered concurrently with a rezoning or other proposal. Public hearings should be held to allow citizens the opportunity to comment on the proposed amendments.

Implementation Goal, Objectives and Strategies

Goal 18. To keep this plan vital and useful by regularly reviewing its recommendations and the progress toward meeting them.

Objective 18.1 To review and update the comprehensive plan at least once every five years.

Strategy 18.1.1 To prepare and implement a schedule for regular plan updates.

Objective 18.2 To publicize the process whereby citizens and landowners may propose amendments to the comprehensive plan between five-year plan review efforts.

Strategy 18.2.1 To provide a description of the plan amendment proposal procedure on the city web site.

Strategy 18.2.2 To make available application and hand-out materials for plan amendment proposals.

Strategy 18.2.3 To establish a deadline after which plan amendment proposals will be subsumed in the regular five-year plan update process.

Objective 18.5 To use the comprehensive plan as a guide in land use and zoning decisions, capital improvements, budgeting, and other city actions.

Strategy 18.5.1 To address the conformance of rezonings, special use permits, the CIP, and public facilities improvements with the comprehensive plan in staff reports.

Strategy 18.5.2 To implement a formal process for Planning Commission determination as to whether the general location and extent of each proposed public facility is in substantial accord with the adopted comprehensive plan. (Section 15.2-2232 of the Virginia Code)

Legend

UDA Boundary

UDA Boundary

Land Use Guide Changes

- LOW DENSITY RESIDENTIAL
- LOW DENSITY MIXED RESIDENTIAL
- NEIGHBORHOOD RESIDENTIAL
- MEDIUM DENSITY RESIDENTIAL
- MEDIUM DENSITY MIXED RESIDENTIAL
- HIGH DENSITY RESIDENTIAL
- MIXED USE DEVELOPMENT AREAS
- PROFESSIONAL
- PLANNED BUSINESS
- COMMERCIAL
- GENERAL INDUSTRIAL
- INSTITUTIONAL
- PUBLIC/SEMI PUBLIC
- CONSERVATION RECREATION

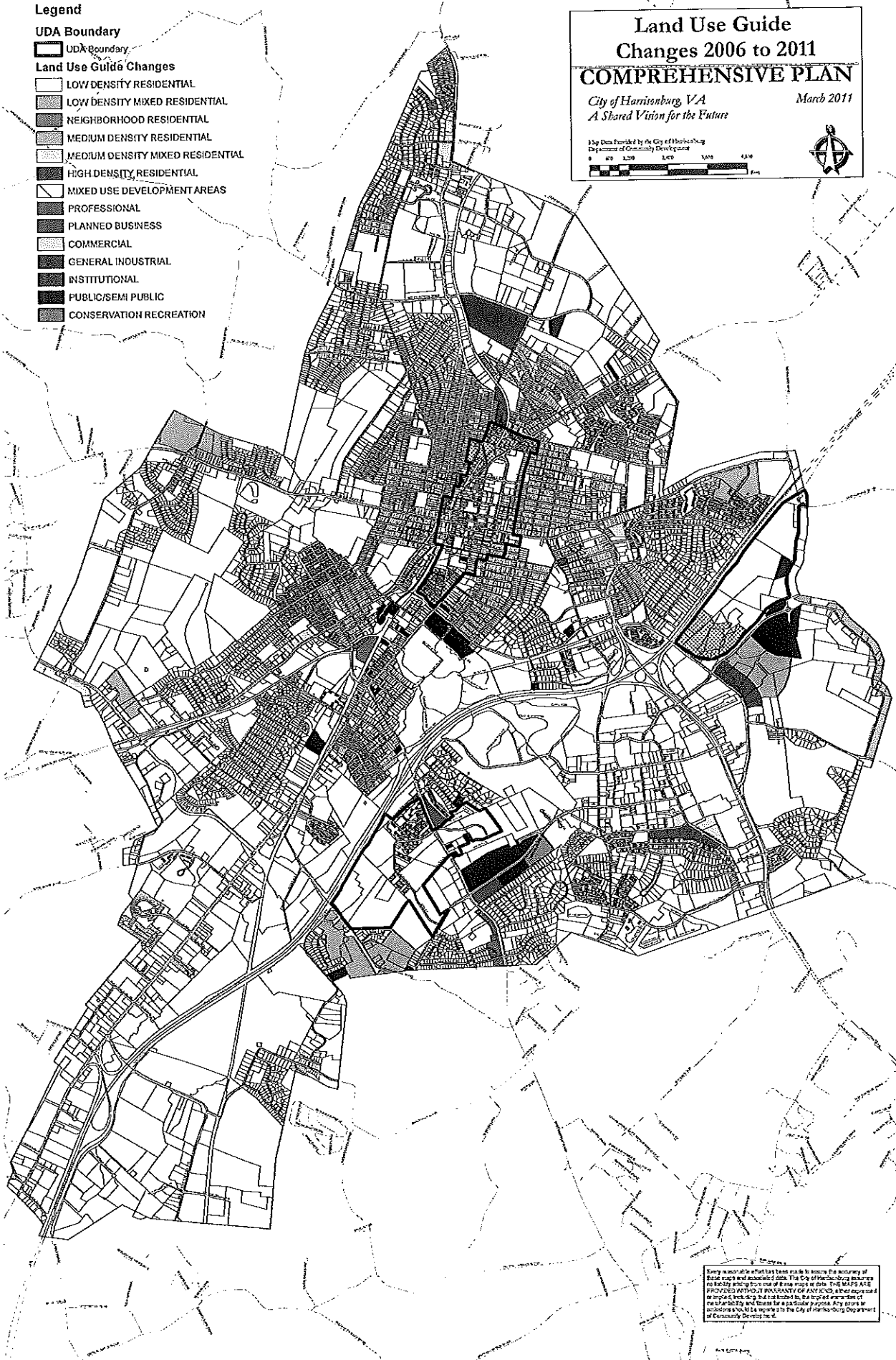
Land Use Guide Changes 2006 to 2011 COMPREHENSIVE PLAN

City of Harrisonburg, VA
A Shared Vision for the Future

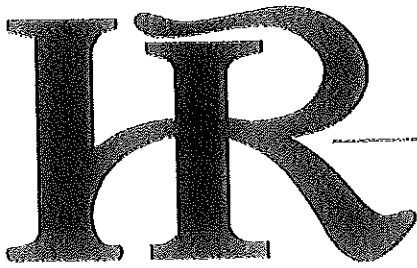
March 2011

Map Data Provided by the City of Harrisonburg
Department of Community Development

0 400 800 1,200 1,600 2,000 Feet



Every reasonable effort has been made to ensure the accuracy of these maps and associated data. The City of Harrisonburg assumes no liability and disclaims any warranty for these maps or data. THE MAPS ARE PROVIDED WITHOUT WARRANTY OF ANY KIND, either expressed or implied, including but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Any errors or omissions shall be reported to the City of Harrisonburg Department of Community Development.



Vision2020: A Community Vision

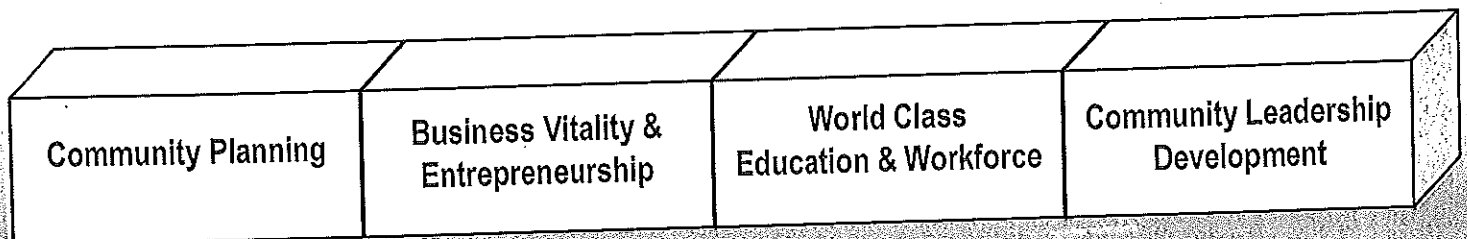
A community of unparalleled quality of life, where natural beauty, friendly interdependent relationships and diverse cultural, economic and educational opportunities exist

We are characterized by:

- A creative, innovative and culturally diverse population which embraces collaboration as a true sense of community
- A well-planned community with an emphasis on blending development with the natural beauty of the Shenandoah Valley
- A community which provides a safe and secure environment, a forward-thinking and needs-based transportation system and leading-edge public infrastructure
- Diverse and balanced educational opportunities that promote individual and community competitiveness in tomorrow's workforce
- A commitment to creating opportunities for meeting career and job needs for our diverse population

This will be accomplished by:

- Creating a shared and unified vision, using public and private resources in a collaborative manner to serve as a core value of this vision
- Sustaining a business environment that supports entrepreneurship, and enables business growth
- Supporting a system of life-long learning, from pre-K through post-graduate education, which provides for a world class workforce and an educated population
- Encouraging excellence in the development of community leadership through mentorships with an emphasis on community involvement, ethics, and philanthropy



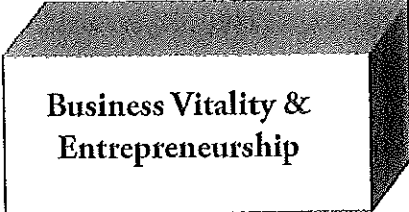


Community Planning

Goal: Creating a shared and unified vision, using public and private resources in a collaborative manner to serve as a core value of this vision

Strategies:

- Identify best practices to bring together city, county, towns, business and citizens for coordination and dialogue
- Educate/engage public on need for participation in the process
- Identify support mechanisms for newly developed process



Business Vitality & Entrepreneurship

Goal: Sustaining a business environment that supports entrepreneurship and enables business growth

Strategies:

- Foster an environment for ongoing development of existing and future entrepreneurs
- Align community business plans/initiatives with Vision2020
- Greater collaboration between business/education
- Identify/develop sources of capital
- Focus on workforce development
- Set up an entrepreneurial incubator fund
- Expand biotech research, investment and employment



World-Class Education & Workforce

Goal: Supporting a system of life-long learning, from pre-K through post-graduate education, which provides for a world class workforce and an educated population

Strategies:

- Advance a world-class education system
- Develop a comprehensive youth development program that focuses on philanthropy, civic responsibility, ethics, and community involvement
- Create a CEO-level workforce council
- Develop an education policy and advocacy group

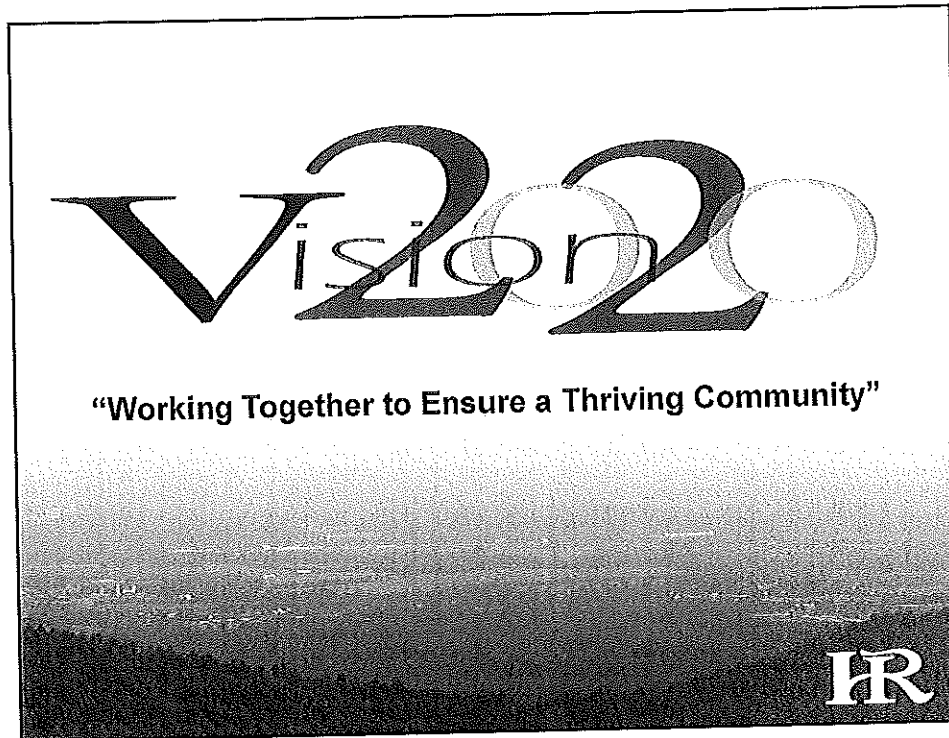


Community Leadership Development

Goal: Encouraging excellence in the development of community leadership through mentorships with an emphasis on community involvement, ethics and philanthropy

Strategies:

- Active engagement by community members
- Develop leadership skill sets
- Mentorships, life-long leadership, and giving back to the community



What is Vision 2020?

- A community-wide initiative to imagine and describe the community we aspire to become by the year 2020
- **"Working Together to Ensure a Thriving Community"**
- **Goal:** Create a unified and shared vision for our community, one that will encourage collaboration in the planning and use of public and private resources.



Impetus for Vision2020

- City/County Population Growth = MSA
- Diversity in Schools, New Facilities
- Harrisonburg Downtown Renaissance
- RMH –\$150M New Campus
- New Technology Park -SRI CADRE
- JMU – Centennial Strategic Plan (\$100M capital investments; expanded enrollment)



Vision2020 - The Process:

- **June 2009 – 1st Vision2020 Summit**
 - Inform: overview of where we are now, 2020 demographics
 - Reflect: community leaders identified areas of need/focus/priorities
- **Feb 2010 – Chamber Survey & Feedback**
 - descriptions, vision, obstacles
- **April 2010 – 2nd Community Leaders Session**
 - drafted vision statement & four cornerstones
- **October 2010 – 3rd Community Leaders Session**
 - developed strategies and action steps



Survey Says: 5 Words to Describe Harrisonburg & Rockingham County



IR

The Vision:

A community of unparalleled quality of life, where
natural beauty, friendly interdependent relationships
and diverse cultural, economic and educational
opportunities exist.

IR

The Cornerstones:

- 1 – Comprehensive Community Plan
- 2 – Business Vitality & Entrepreneurship
- 3 – World Class Education & Workforce
- 4 – Community Leadership Development



Comprehensive Community Plan:

Goal: Creating a shared and unified vision, using public and private resources in a collaborative manner to serve as a core value of this vision.



Business Vitality & Entrepreneurship:

Goal: Sustaining a business environment that supports entrepreneurship, and enables business growth.



World Class Education & Workforce:

Goal: Supporting a system of life-long learning, from pre-K through post-graduate education, which provides for a world class workforce and an educated population.



Community Leadership Development:

Goal: Encouraging excellence in the development of community leadership through mentorships with an emphasis on community involvement, ethics, and philanthropy



Recent Updates:

- December - CEO Roundtable meeting (topics: Vision2020, collaboration, workforce development)
- January - *Workforce Development Resource Guide* being developed by the HRCC for area businesses (based on Vision2020 and CEO identified needs)
- January - "Developing a Community Brand and Marketing Strategy for the Harrisonburg-Rockingham Metropolitan Area" initiated as a joint venture by Harrisonburg and Rockingham County
- February - SVP Workforce and Education Committee reconvened to discuss collaboration and workforce strategies
- March - BRCC hosting Business and Industry Summit called to identify area businesses' employee skill needs and shortages and discuss education and training provider solutions



The Next Steps:

- Government Officials, Town Councils, Boards:
 - Inform and advise
 - Request support of Vision 2020 tenets
 - Pledge of collaboration and future participation
- Formation of Vision2020 Steering Committee
 - Steward 4 cornerstones
 - Hold community accountable



Our request:

The Council recognizes the importance of a community-wide *vision* for the future and the value of local governments, the business community and local residents working together to ensure a thriving community as described in the Vision2020 *vision statement*.

The Council endorses the work of the community, government and business leaders in the Vision2020 process and commits to working in a cooperative and collaborative manner to make the *vision* a reality.



March 2011 Proactive-Zoning Report

For the month of March 2011 the proactive-zoning program targeted the **Chicago Avenue** section of the city. During the proactive inspections a total of **twenty nine violations** were found. This was an increase in the number of violations from both the first and second 3-year cycles as noted in the chart below. The violations consisted of inoperable vehicles and discarded materials.

MONTH	SECTOR	VIOLATIONS	CORRECTED	1 st CYCLE	2 nd CYCLE
December 2008	Wyndham Woods	4	4	2	0
January 2009	Northfield	19	19	21	6
February 2009	Purcell Park	5	5	7	6
March 2009	Parkview	16	16	19	7
April 2009	Northeast	63	63	80	45
May 2009	Ind./Tech Park	0	0	0	1
June 2009	Exit 243	1	1	10	0
July 2009	Fairway Hills	0	0	1	0
August 2009	Smithland Rd.	0	0	0	4
September 2009	N. Main St.	4	4	13	4
October 2009	Liberty St.	18	18	6	4
November 2009	Westover	17	17	18	8
December 2009	Garber's Church	1	1	1	2
January 2010	Spotswood Acres	1	1	6	4
February 2010	Jefferson St.	35	35	26	22
March 2010	Forest Hills/JMU	1	1	6	1
April 2010	S. Main St.	2	2	1	0
May 2010	Hillandale	17	17	7	5
June 2010	Maplehurst/JMU	2	2	6	5
July 2010	Long Ave/Norwood	17	17	12	28
August 2010	Greystone	13	13	13	10
September 2010	Greendale/SE	5	5	3	2
October 2010	Ramblewood	1	1	4	8
November 2010	Stone Spring Village/JMU	0	0	2	10
December 2010	Sunset Heights	10	10	7	29
January 2011	Reherd Acres	9	9	10	12
February 2011	RT 33 West	6	6	0	16
March 2011	Chicago Ave	29	n/a	16	22
April 2011	Pleasant Hill			4	13
May 2011	Avalon Woods			7	26
June 2011	Waterman Elementary			6	61
July 2011	Bluestone Hills & Valley Mall			3	33
August 2011	Keister Elementary			6	5
September 2011	500-600 S. Main			7	30
October 2011	Court Square			0	3
November 2011	Preston Heights			8	3

The proactive-zoning program for April 2011 will be directed towards the enforcement of the Zoning Ordinance in the **Pleasant Hill** section of the City.

Proactive Zoning Map

